2010

Utah Chapter of the Sierra v. Utah Division of Oil : Brief of Appellee

Utah Court of Appeals

IN THE UTAH SUPREME COURT

UTAH CHAPTER OF THE SIERRA CLUB, et al., Petitioners and Appellants, vs. UTAH DIVISION OF OIL, GAS & MINING, UTAH BOARD OF OIL, GAS & MINING, Respondents and Appellees, ALTON COAL DEVELOPMENT, LLC, and KANE COUNTY, UTAH, Respondent/Intervenors and Appellees.	Appeal No. 20100969-SC Agency Docket No. 2009-019 Cause No. C/025/0005

ADDENDUM

TO BRIEF OF RESPONDENTS-APPELLEES UTAH BOARD OF OIL, GAS AND MINING and DIVISION OF OIL, GAS AND MINING

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ADDENDA

Tab 1

BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

UTAH CHAPTER OF THE SIERRA CLUB, SOUTHERN UTAH WILDERNESS ALLIANCE, NATURAL RESOURCES DEFENSE COUNCIL, and NATIONAL PARKS CONSERVATION ASSOCIATION, Petitioners, DIVISION OF OIL, GAS AND MINING and ALTON COAL DEVELOPMENT, LLC Respondents, Kane County, Utah, Respondent-Intervenors.	FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL ORDER Docket No. 2009-019 Cause No. C/025/0005

This matter came before the Board of Oil, Gas and Mining (the "Board"), on Petitioners' Request for Agency Action appealing the decision of the Division of Oil, Gas & Mining (the "Division"), to approve the application of Alton Coal Development, LLC ("Alton" or "ACD"), to conduct surface coal mining and reclamation operations at the Coal Hollow Mine, Kane County, Utah, and granting Alton a permit to mine under the Utah Coal Mining and Reclamation Act ("UCMRA"). The hearing in this matter commenced on Wednesday, December 8, 2009, at 9:00 a.m., in the Department of Natural Resources Auditorium in Salt Lake City. Additional hearings were held on January 27, March 24, April 28–29, May 21–22, and June 11, 2010. The record closed upon submission of final post-hearing briefs on June 23, 2010. All proceedings

were conducted as formal hearings pursuant to Utah Code § 63G-4-206 and this Board's Rules of Practice and Procedure.

NOW THEREFORE, the Board, having fully considered the testimony adduced, the credibility of witnesses, the exhibits received, and arguments made at the hearing, and being fully advised in the premises, confirms the decision of the Division and grants the Coal Hollow Mine Permit No. C/025/005 on the basis of the following Findings of Fact, Conclusions of Law, and Order[1], entered herein:

FINDINGS OF FACT

The Parties

1. Petitioner Utah Chapter of the Sierra Club is a chapter of the Sierra Club, a national nonprofit organization.

2. Petitioner Natural Resources Defense Council is a national nonprofit environmental membership organization.

3. Petitioner National Parks Conservation Association is a nonprofit national organization.

4. Petitioner Southern Utah Wilderness Alliance is a nonprofit environmental membership organization with offices in Utah and Washington, D.C.

5. Respondent Utah Division of Oil, Gas and Mining ("the Division") is an agency within the Department of Natural Resources, an executive agency of the State of Utah.

[1] Many statements in this Findings of Fact, Conclusions of Law and Order pertain to ultimate facts or involve the application of law to fact. To the extent any finding of fact may be construed as a conclusion of law, the Board adopts it as such. To the extent any conclusion of law may be construed as a finding of fact, the Board adopts it as such.

6. Respondent Alton Coal Development LLC ("Alton" or "ACD") is a Nevada Limited Liability Company authorized to conduct business in the State of Utah, with corporate offices in Cedar City.

7. Respondent-intervenor Kane County is a political subdivision of the State of Utah.

8. By stipulation dated March 23, 2010,and accepted by the Board on April 29, 2010, all parties agreed that Petitioners had standing to pursue this action under Utah Code § 40-10-14(3) and Utah Admin. Code R645-100-200 and R645-300-210, and the Board therefore did not need to rule upon the issue.

Appearances

9. Petitioners were represented by Stephen H.W. Bloch and Tiffany Bartz, Southern Utah Wilderness Alliance, Walton D. Morris, Jr., Morris Law Office, *pro hac vice*, and Sharon Buccino, Natural Resources Defense Council, *pro hac vice*.

10. Respondent Utah Division of Oil, Gas and Mining was represented by Steven F. Alder and Fredric J. Donaldson, Assistant Attorneys General, State of Utah.

11. Respondent Alton Coal Development LLC was represented by Denise A. Dragoo and James P. Allen, Snell & Wilmer L.L.P., and Bennett E. Bayer, Landrum & Shouse LLP, *pro hac vice*.

12. Respondent-intervenor Kane County was represented by County Attorney Jim Scarth and Deputy County Attorney William Bernard.

13. The Board was represented by Michael S. Johnson and Megan DePaulis, Assistant Attorneys General, State of Utah.

Preliminary Matters

14. Alton submitted its application to the Division on June 14, 2007, to conduct surface coal mining operations at the Coal Hollow Mine on private land near Alton, Utah. The application was submitted pursuant to the Utah Coal Mining and Reclamation Act ("UCMRA"), Utah Code Ann. § 40-10-1, et seq.

15. The application was reviewed, determined to be incomplete, and denied by the Division on August 27, 2007.

16. Alton submitted supplemental information to the Division on January 24, 2008.

17. The Division determined the application to be administratively complete in light of this new information on March 14, 2008, and commenced its technical review.

18. The public was notified of the complete permit application through advertisement in the Southern Utah News from March 26 to April 16, 2008.

19. Responding to written requests, the Division convened an informal conference on June 16, 2008, in the Alton City Hall. None of the Petitioners appeared at the informal conference.

20. On October 19, 2009, the Division approved Alton's permit and issued proposed permit number C/025/005 for the Coal Hollow Mine.

21. On November 18, 2009, Petitioners, Utah Chapter of the Sierra Club, Southern Utah Wilderness Alliance, Natural Resources Defense Council, and National Parks Conservation Association, (hereinafter collectively referred to as "Petitioners") filed a Request for Agency Action and Request for a Hearing with this Board challenging the reasons for the approval ("the Petition").

22. The Petition alleged that the Division failed to follow applicable state law in approving the permit application and asked this Board to vacate the approval and/or remand the matter to the Division to correct the 32 permit deficiencies it alleged.

23. On November 19, 2009, ACD filed a motion for leave to intervene that was granted by the Board.

24. On December 8, 2009, Kane County filed a motion for leave to intervene that was also granted by the Board.

25. The Division, ACD, and Kane County each filed written answers to the allegations of deficiency in the Petition.

26. The Board initiated the hearing on December 9, 2009, by considering various procedural matters.

27. At the request of the parties, the Board thereafter received written arguments regarding the scope and standard of review.

28. On January 13, 2010, the Board issued its Order Concerning Scope and Standard of Review to govern the conduct of the hearing. The Board determined that it would conduct a

full evidentiary hearing and determine all legal and factual issues arising therein without deference to the Division's decision except under some circumstances where significant technical or scientific judgment was involved. The Board determined that Petitioners bore all burdens of proof necessary to overturn the decision of the Division.

The proposed form of the final order submitted by the Respondents and the objections thereto filed by Petitioners evidence disagreement among the parties concerning the standard of review the Board has applied in this case. Given this disagreement, the Board briefly addresses that topic herein in addition to what it stated in its Interim Order and its January 10, 2010 Order Concerning Scope and Standard of Review.[2]

The Board has weighed all of the evidence in the record in making the factual findings set forth herein without granting any deference to the findings made by the Division as a general rule. Based in part upon the *Save Our Cumberland Mountains, Inc. v. Office of Surface Mining Reclamation and Enforcement*[3] case (the "*SOCM*" decision) cited by Petitioners and more fully discussed in the January 12, 2010 Order, the Board has recognized that a limited degree of deference may, under certain circumstances, be applied where the factual question at issue involves substantial scientific or technical analysis.[4] Application of this limited deference may

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[2] Petitioners have suggested that the Board attach and incorporate by reference its January 10, 2010 Order Concerning Scope and Standard of Review. The Board believes this exercise to be unnecessary, however, as the Board's prior pronouncements in this case (except to the extent any later or final orders modify, clarify, differ from or add to such prior pronouncement) remain a part of the record and part of the body of the Board's rulings in this matter. To the extent necessary, the Board incorporates its prior orders by reference (except to the extent later orders modify or differ from such orders). The Board notes that a separate order setting forth the Board's reasoning on certain procedural and evidentiary rulings made during the course of the hearing is being issued in conjunction with the present Findings of Fact, Conclusions of Law and Order.

[3] No. NX-97-3-PR (U.S.D.O.I. -O.H.A., July 30, 1998). The SOCM decision is attached to Petitioners' Brief on the Scope of Review (filed on December 29, 2009) as Exhibit 1.

[4] As noted in the Interim Order, *SOCM* did not construe the UCMRA or Utah coal rules and is not binding upon this Board. The Board does not hold that all pronouncements set forth in *SOCM* should

or may not be necessary to the resolution of the various technical factual issues in this case. Thus, on technical questions, where the weight of the evidence supports the Division's finding, the Board's finding is consistent with that made by the Division without the application of any deference being necessary.[5] On technical questions for which the evidence presents a closer call but ultimately demonstrates nothing more than a difference of opinion and interpretation between the Petitioners' expert and the experts relied upon by the Division, this limited deference doctrine will be applied and the Division's finding will be upheld. If the Division's finding is contrary to the evidence, the Board will not uphold the Division's finding but will make a finding consistent with the evidence presented. Recognition of this limited deference doctrine on technical issues is consistent with the *SOCM* decision and other authorities which recognize that the permit-issuing agency is entitled to rely upon the expertise of its technical experts.

In this case, as more fully described below, the Board has found on all disputed issues involving substantial technical and scientific analysis that the weight of the evidence supports the Division's findings without the application of any deference being necessary. Given that the limited deference doctrine described above constitutes part of the standard of review to be applied to such questions, and despite the fact that application of such deference isn't necessary to the Board's findings announced herein, the Board has nevertheless noted on certain disputed technical issues that even if the evidence were construed to present a closer call that this deference doctrine would dictate the same result. Consequently, the presence of this limited

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control in this or future matters before this Board. Given that all parties have acknowledged the applicability of some degree of deference on technical questions under certain circumstances, the Board has looked to *SOCM* as persuasive authority in this regard for purposes of the present matter.

[5] It should be noted that the Board, by statutory design, possesses expertise in certain technical areas including geology, ecological and environmental matters, and mining. *See* Utah Code Ann. §40-6-4(2).

deference doctrine as part of the controlling standard of review reinforces the findings made herein.

29. The Division filed motions to dismiss Petitioners' Cultural Resource and Air Quality claims. The Board denied those motions on February 18, 2010.

30. Alton filed a Motion for Summary Decision relating to Petitioners' Cultural Resource and Air quality claims and a separate Motion for Summary Decision relating to Petitioners' Hydrology claims. With the parties' concurrence, the former was treated as a Motion to Dismiss and considered along with the Division's Motion to Dismiss the same claims, and denied as noted above. Alton withdrew the latter motion with respect to the hydrology claims.

Discovery

31. Discovery was conducted by Petitioners, the Division, and Alton pursuant to the terms of a stipulated discovery plan approved by the Board on January 27, 2010.

32. Petitioners took the depositions of the Division and Alton upon oral examination pursuant to Rule 30(b)(6) of the Utah Rules of Civil Procedure.

33. Alton and the Division took the oral depositions of Petitioners' expert witnesses Charles Norris and Elliott Lips.

34. At the request of Petitioners, Alton provided access to the Coal Hollow Mine Permit Area for Petitioners for the purposes of inspection and measuring, surveying, photographing, testing, or sampling the site.

35. A first site visit on March 2, 2010, by Elliott Lips and Tiffany Bartz, Esq., on behalf of Petitioners, was hampered by deep snow.

36. A second visit by Mr. Lips and Ms. Bartz occurred on May 12–13, 2010.

The Coal Hollow Mine

37. The proposed coal mine would be located in the Alton coalfield in Kane County approximately 3 miles south of the town of Alton, Utah.

38. Alton Coal Development, LLC proposes to mine the Smirl coal seam by surface mining methods.

39. The permit area consists of 635.64 acres of privately-owned surface. All of the coal included in the permit application is privately owned and leased to Alton.

40. Alton has applied to the Bureau of Land Management (BLM) for leases on federally-owned coal located adjacent to the Coal Hollow Permit area for future phases of mine development.

41. The mine as currently permitted would produce about 2,000,000 tons of fee coal annually for approximately 3 years.

42. Coal will be transported from the permit area in trucks on public highways.

The Evidentiary Hearing

43. Pursuant to the Board's April 7, 2010, Scheduling Order, an evidentiary hearing was held on April 29-30 and May 21-22, 2010, in Salt Lake City, Utah. An additional day of hearing was required and the hearing concluded on June 11, 2010.

44. Board Chairman Douglas E. Johnson and Board Members Ruland J. Gill, Jr., James T. Jensen, Kelly L. Payne, Samuel C. Quigley, and Jean Semborski were present for all proceedings. Board member Jake Y. Harouny was excused and did not participate in any of the proceedings.

45. Prior to beginning the evidentiary hearing, Petitioners prepared a final list of issues to be heard, narrowing the claims of the initial Petition to 17 claims of deficiency and waiving all other previously alleged claims. That final list of claims was attached to and made part of the Board's April 7, 2010, Scheduling Order. Findings of Fact and Conclusions of Law are set forth separately in this Final Order for each of the identified issues according to the sequence listed in the Scheduling Order. All other claims are dismissed in accordance with Petitioners' request.

46. Petitioners, the Division, and Alton each presented exhibits and examined witnesses, including cross examination of opposing witnesses. The Board finds that each party was afforded a full and fair opportunity to present its case.

47. The entire Permit Application Package ("PAP") was made an exhibit for purposes of the hearing, regardless of whether any specific reference was made to any particular section during the course of the hearings and the parties were entitled to rely upon the various provisions of the PAP.

48. The Board entered an Interim Order dated August 3, 2010 setting forth an announcement of the Board's basic ruling on each claim and directing the prevailing parties to prepare a more in-depth proposed Findings of Fact, Conclusions of Law and Order. A proposed order was filed by Respondents and Petitioners filed objections to its form. The Board took

these filings under consideration in fashioning the present Findings of Fact, Conclusions of Law and Final Order.

ISSUE 1: Has the Division made a determination of eligibility and effect related to cultural and historic resources for the entire permit area approved for the Coal Hollow Mine.

FINDINGS OF FACT

49. Documentary evidence admitted at the hearing shows that all of the permit area, and more than 3000 acres of surrounding area, were surveyed for the presence of archaeological sites and cultural resources in Cultural Resource Inventories dated March 10, 2006, January 9, 2008, and July 10, 2008, by Montgomery Archaeological Consultants.[6]

50. Alton, the Division, the State Historic Preservation Officer ("SHPO"), and federal agencies cooperated in preparing a Cultural Resources Management Plan (the "CRMP") to address cultural resources which may be affected by ACD's pending federal coal lease application for reserves located outside the current permit area. Development of the CRMP was not required to comply with the Board rules. The CRMP provides a long-term framework for dealing with cultural resources, including the possibility of newly-identified resources.

51. The record contains correspondence between the Division and SHPO showing that the Division evaluated the effects of the mining operations on all sites initially known to the Division within the permit area, prepared a "determination of eligibility and effect" and requested SHPO concurrence on this determination.

[6] All evidence admitted was considered and weighed by the Board. Any reference to specific items of evidence herein should not be construed as an indication that the Board did not consider the other evidence in the record which is not specifically mentioned in these findings.

52. The testimony at the hearing[7], confirmed by evidence of the Division-SHPO correspondence, established that 15 cultural resource sites inside the permit area were initially identified and made known to the Division and 14 of the sites were determined to be eligible for listing and were required to either be avoided or the effects on the sites will be mitigated.

53. The Division obtained the concurrence of the SHPO on their eligibility and effect determination and on the plans to avoid or mitigate the potential impact to the sites that it identified and determined to be affected.

54. At the time it approved the Coal Hollow Mine application on October 19, 2009 the Division found that it had taken into account the effect of the proposed coal mining and reclamation operations on all cultural and historic resources within the permit area and adjacent area that had been determined to be eligible for listing on the National Register of Historic Places and had obtained concurrence from the SHPO with its determination of eligibility and effect for these sites.

55. Two additional sites within the permit area were made known to the Division by Alton after permit approval. These sites have been evaluated by the Division for eligibility and effect and have received concurrence by SHPO. The Division immediately advised ACD in writing that an additional condition would be added to the permit decision that would require

[7] The Board received into evidence excerpts of the 30(b)(6) deposition transcripts of certain witnesses who also testified at the hearing concerning Issue Nos. 1 through 9 (specifically, excerpts of the depositions of Daron Haddock, Joe Helfrich, Jody Patterson and Priscilla Burton). The Board found these deposition excerpts in general to be less helpful than the live testimony, and therefore placed greater weight on the live testimony. The transcript excerpts were generally cumulative of, and less detailed than, the live testimony, the Board itself was able to observe and participate in the questioning of the subject witnesses during the live testimony, and the live testimony was more helpful because it was received in the context of the presentation of other evidence at the hearing. The deposition excerpts were therefore ultimately of little probative value to the Board in comparison to the live testimony.

mitigation or avoidance of the two newly identified sites and SHPO concurrence in the action. Preparation of a mitigation plan for these sites is pending.

56. The evidence did not establish that any site in the permit area had been overlooked or omitted from the determination of eligibility and effect. The evidence did not establish that SHPO clearance omitted any affected site. The evidence did not establish that mitigation or avoidance measures are inadequate for any site. The weight of the evidence supported the Division's actions in this regard.

CONCLUSIONS OF LAW

57. Petitioners have failed to meet their burden of proving that the Division's approval of the permit with regard to this issue was contrary to the evidence or was otherwise arbitrary or capricious or in violation of Utah Code § 9-8-404.

58. The Division is required to take into account the effect of the proposed permit on properties listed on and eligible for listing on the National Register of Historic Places before approving any "undertaking." Utah Code § 9-8-404(1); Utah Admin. Code R645-300-133.600.

59. In this matter, the "undertaking" is the issuance of a state mine permit for surface coal mining and reclamation operations located entirely on private land.

60. This Board's rules for permit applications implement the statutory mandate to "take into account" the effect on historic or cultural resources by requiring information and maps about known archaeological sites and cultural/historic sites eligible for listing on the National Register of Historic Places in the permit and adjacent areas. See Utah Admin. Code R645-301-411.140, 411.141.

61. The Rules also require that the permit application show evidence of coordination with, and clearances from, the State Historic Preservation Officer. R645-301-411.142.

62. The clearances can be based on plans for mitigation of adverse effects, and so long as it is completed before the resource is affected, this mitigation may occur after permit issuance. R645-301-411.144.

63. Compliance with regulatory requirements related to cultural resources can be assured after permit approval by imposing conditions on applicant's mining operations or practices. R645-300-133.600; R645-300-143; R645-303-222; R647-6-3.13; R645-223.300.

64. The Division complied with Utah Code § 9-8-404 by evaluating information contained in cultural resource inventories, participating in the CRMP process, and consulting with the SHPO for all sites identified by surveys covering the entire permit area.

65. The Division complied with this Board's rules at R645-301-411.140 through 411.144.

66. Petitioners did not demonstrate that the cultural resource information submitted by the applicant and available to the Division was inadequate under Utah Code Ann. § 9-8-404 or the Board's rules at R645-301-411.140 through 411.144. The weight of the evidence demonstrated the adequacy of the information for these purposes.

67. The permit application contains evidence of the required consultation with SHPO.

68. Consistent with R645-301-411.144 and the Division's findings when the permit was approved, the permit is conditioned on proper mitigation or avoidance of the two recently identified sites.

69. Omission of two sites from those identified in the Division's pre-approval consultations with SHPO was fully remedied.

70. The Division made the finding required by R645-300-133.600 that cultural and historic resources within the permit area were taken into account.

71. The Division made a complete determination of eligibility and effect related to cultural and historic resources for the entire permit area approved for the Coal Hollow Mine.

72. The Division took into account effects of the proposed mining and reclamation operations on all eligible sites within the permit area based on the surveys and the additional condition for mitigation or avoidance of the two recently identified sites.

73. The permit provides for dealing with sites discovered after operations begin, and the Board's rules provide for permit approval conditioned upon future mitigation of known or later discovered sites. Given that the Division remedied the omission of the two sites identified after application approval, and given that the Division imposed a new condition on the permit requiring mitigation pursuant to R645-301-411.144, the Board with respect to this issue upholds the Division's approval of the permit as conditioned by the requirement to avoid or mitigate the newly-identified sites.

ISSUES 2 and 3. Did the Division's determination of eligibility and effect related to cultural resources cover any area outside of the permit area; and did the Division consider a mitigation plan for any cultural or historic properties located wholly outside of the permit area.

FINDINGS OF FACT

74. The cultural resource surveys with their accompanying maps show that over 90 archaeological sites were identified by Alton at locations outside the permit area.

75. The Division was by these surveys adequately apprised of the historic sites that had been identified and their location relative to the permit boundary and was able to identify a subset of the identified sites that reasonably could be expected to be adversely impacted by coal mining and reclamation operations. These sites were either within the permit area or partially within the permit area. Some of these sites barely touched the permit boundary and some extended from 220 to 1000 feet beyond the permit boundary.

76. The Division evaluated sites located in the area adjacent to the permit boundary for eligibility and potential adverse effect.

77. Evidence produced at hearing and available in the record shows that sites located entirely beyond the permit boundary cannot reasonably be expected to be adversely impacted by coal mining and reclamation operations.

78. Surface disturbance is the only reasonably anticipated means of having an adverse impact on identified sites. Because surface disturbance must be confined to the permit area, sites located some distance from the permit area will escape any likely effect of "coal mining and reclamation operations."

79. The Division reasonably deemed off-permit adverse effects to cultural resources from stormwater drainage or blowing dust from coal mining and reclamation operations to be unlikely.

80. The Division's determination of potential adverse impacts beyond the permit boundary was reasonable and was based on sound analysis of the evidence of the potential for harm, thorough surveys of the identified locations and the SHPO's concurrence. The weight of the evidence supports the Division's determination on this issue.

81. The SHPO concurred in the Division's determination that adverse impacts to sites at the boundary of the permit area are prevented by avoidance of the sites and that this is appropriate mitigation as required by Utah Code § 9-8-404.

82. The evidence did not establish that any site located wholly outside the permit area reasonably can be expected to be adversely impacted by coal mining and reclamation operations. The evidence did not establish that any site other than those identified by the Division can reasonably be expected to be adversely impacted by coal mining and reclamation operations.

83. The Board finds that the Division properly identified all known eligible sites to the SHPO and obtained the SHPO's concurrence prior to approving the permit application.

CONCLUSIONS OF LAW

84. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

85. Utah Admin. Code R645-100-200 defines "adjacent area" as "the area outside the permit area where a resource or resources, determined according to the context in which adjacent

area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations."

86. This Board's rules do not require a map or a delineated boundary of an 'adjacent area' for cultural resources or any other resource. (See Utah Admin. Code R645-100 200 and R645-301-411.141).

87. The Division complied with Utah Code § 9-8-404 by taking into account the effects of Coal Hollow's coal mining and reclamation operations on cultural resources in the adjacent area, according to the definitions of "Coal Mining and Reclamation Operations" and "adjacent area" provided in this Board's rules.

88. The Division complied with R645-301-411.140 through 411.144 by evaluating impacts on every eligible site where impacts from mining and reclamation could be reasonably expected.

89. The Division's determination of eligibility and effect related to cultural resources included areas outside of the permit area including all of the adjacent area.

90. The Division complied with R645-301-411.144 by providing for mitigation of adverse effects on all eligible sites located in the permit area and adjacent area.

91. The Division's analysis of eligible sites ensured that it considered the impacts to all sites that could reasonably be expected to be impacted by coal mining and reclamation operations.

92. The Board concludes that the Division's determination complied fully with the applicable statutes and regulations and was correct and proper in all respects.

Issue 4. Was the Division required to identify and address the effect of the proposed Coal Hollow Mine on the Panguitch National Historic District before approving the mine permit.

FINDINGS OF FACT

93. The Cultural Resource Management Plan ("CRMP") identified the Panguitch National Historic District ("PNHD") as a cultural resource located on the possible coal haul route.

94. The PNHD comprises an area consisting of most of the land within the City of Panguitch located 35 miles from the Coal Hollow mine and encompasses a variety of buildings, streets, and locations abutting the main route of US Highway 89.

95. Coal transportation from the Coal Hollow mine may occur by truck haulage through the Town of Panguitch on U.S. Highway 89.

96. The Board takes official notice that Highway 89 is a long established public highway built and maintained with public funds by public entities as part of the State of Utah's and the Nation's transportation systems and is the main public truck and vehicle transportation route in this part of the State of Utah.

97. Petitioners presented evidence that some residents of Panguitch were concerned about possible damage to the PNHD as a result of the increased traffic from trucks hauling coal from the mine on Highway 89. The evidence presented did not substantiate these concerns.

98. In any event, coal transportation from the Coal Hollow Mine by truck haulage through the PNHD on U.S. Highway 89 is not a coal mining and reclamation operation as that term is defined in the Utah Coal Mining and Reclamation Act and this Board's rules.

99. The PNHD is not located within the Coal Hollow Mine's adjacent area for cultural resources by virtue of the possibility that it could be impacted by truck traffic hauling coal from the mine.

100. The evidence did not establish that any coal mining and reclamation operation of the Coal Hollow Mine could reasonably be expected to adversely impact the PNHD.

CONCLUSIONS OF LAW

101. Petitioners did not meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

102. The Division is required by the provisions of Utah Code Ann. § 9-8-404 and Utah Admin. Code R645-300-133.600 to take into account the effect of the proposed permit on properties listed on and eligible for listing on the National Register of Historic Places.

103. The coal rules under R645-100-200 govern how the adjacent area for historic and cultural resources potentially affected by a permit for a coal mining operations are to be determined and analyzed.

104. Utah Admin. Code R645-301-411.140 requires a narrative describing the nature of cultural and historic resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas.

105. Utah Admin. Code R645-100-200 defines adjacent area as "the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations."

106. Coal transportation from the Coal Hollow Mine by truck haulage through Panguitch on U.S. Highway 89 is not a coal mining and reclamation operation as that term is defined in the Utah Coal Mining and Reclamation Act and this Board's rules.

107. The PNHD is not located within the Coal Hollow Mine's adjacent area for cultural resources by virtue of the possibility that it could be impacted by truck traffic hauling coal from the mine.

108. The Division's determination that the PNHD was not within the adjacent area for cultural resource protection for the Coal Hollow Mine was reasonable, based on the law (including R645-100-200) and on information presented in the application, and is supported by the weight of the evidence.

109. The Division's determination that it was not reasonable to expect impacts to cultural resources in the PHND from the coal mining and reclamation operations is not contrary to the evidence and was not otherwise arbitrary or capricious.

110. The National Historic Preservation Act ("NHPA") and the rules of the Advisory Council on Historic Preservation at 36 C.F. R. Part 800 do not apply to the Division's decision to approve the permit application. When a state such as Utah has an approved program under the federal Surface Mining Control and Reclamation Act, 30 U.S.C. § 1201, et seq. ("SMCRA"),

granting a permit pursuant to that program is not a federal "undertaking" triggering compliance with the NHPA. Nat'l Min. Assn. v. Fowler, 324 F.3d 752 (D.C. Cir. 2003).

Issue 5. Whether the Division determined that the Fugitive Dust Control Plan for the Coal Hollow Mine met the requirements of the Division's regulations prior to approving the mine permit.

Issue 6. Whether the Division of Air Quality provided the Division of Oil, Gas and Mining an evaluation of the effectiveness of the Fugitive Dust Control Plan for the Coal Hollow Mine prior to the Division's approval of the mine permit.

Issue 7. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of receipt of a complete air permit application from ACD for the Coal Hollow Mine.

Issue 8. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of approval of an air permit for the Coal Hollow Mine.

Issue 9. Whether the Division was required to wait for the Division of Air Quality's evaluation of the Fugitive Dust Control Plan including the plan's effectiveness in addressing the quality of the night skies before approving the Coal Hollow mine permit.

FINDINGS OF FACT

111. The Coal Hollow Mine is projected to produce more than 1,000,000 tons of coal per year.

112. The permit application contains a Fugitive Dust Control Plan. The Fugitive Dust Control Plan is included in the Mining and Reclamation Plan as Appendix 4-5.

113. The Division's expert concluded that the dust control practices described in the Fugitive Dust Control Plan comply with the requirements of Utah Admin. Code R645-301-244.100 and 244.300. The weight of the evidence supports the Division's finding in this regard.

114. The evidence did not establish that the fugitive dust control plan and practices at issue fail to adequately protect against impacts to night sky clarity. The Division presented evidence that its soil scientist reviewed the proposed dust control procedures and found them to

be adequate. Petitioners presented no evidence demonstrating the inadequacy of those practices for any purpose. Accordingly, the Board finds that the dust control practices, as proposed in the Fugitive Dust Control Plan, adequately protect against air pollution resulting from fugitive dust emissions.

115. The permit application contains a proposed air quality monitoring program designed to collect data to evaluate the effectiveness of the fugitive dust control practices in the Fugitive Dust Control Plan. The monitoring program contemplates the use of EPA Method 9.

116. The evidence did not establish any inadequacy with the monitoring program, and did not establish that the monitoring program would provide insufficient data to evaluate the effectiveness of the fugitive dust control practices in compliance with applicable regulations. The limited evidence presented at the hearing regarding the efficacy of Method 9 tended to support its suitability as a monitoring method for the Alton Fugitive Dust Control Plan.

117. The Division approved the Coal Hollow Mine permit with a condition that ACD obtain Utah Division of Air Quality ("DAQ") approval of the monitoring plan in conjunction with DAQ's determination to grant or deny an Air Quality Approval Order.

118. The Board finds that including this condition was a reasonable and proper means of assuring that the monitoring plan would produce sufficient data to determine the effectiveness of dust control measures and satisfies the requirements of the state and federal air quality laws.

119. The dust monitoring plan, as conditioned, will produce sufficient data to evaluate the effectiveness of control measures set forth in the Fugitive Dust Control Plan.

120. After the final hearings in this matter, the Board asked the parties to update the Board on DAQ's review and to explain how any potential challenge to the approval or denial of the air quality permit and the proposed monitoring program would be decided.

121. At the time of the Board's request for additional information, DAQ had reviewed and accepted the Fugitive Dust Control Plan including the proposed fugitive dust control practices and the proposed air quality monitoring program (including the use of EPA Method 9). At the time of the Board's request, the Air Quality Approval Order remained under consideration pending the review of air dispersion modeling.

122. The Air Quality Approval Order will be subject to a thirty-day public comment period, and review of the order may be had before the Utah Air Quality Board.

123. As noted above, regardless of the present status of DAQ's review and approval of EPA Method 9 as a monitoring method, the Board finds that the Division's conditioning of the permit on the operator obtaining DAQ approval of the monitoring method prior to mining was a reasonable and proper means of ensuring that the monitoring method meets the requirements of the regulations.

124. The only credible evidence shows that, to the extent that impacts to night sky clarity are embraced by the subject regulations, the Coal Hollow mining operations as approved will not result in adverse impacts on the clarity of the night sky.

CONCLUSIONS OF LAW

125. Petitioners have failed to meet their burden of proving any error in the Division's approval of the permit with regard to this issue.

126. The Division properly evaluated and determined that the fugitive dust control plan, and the air quality monitoring program, as conditioned, comply with applicable coal mining regulations related to air quality, found at Utah Admin. Code R645-301-420, -421, -422, -423, -423.100, and -423.200.

127. The fugitive dust control practices described in the Fugitive Dust Control Plan comply with applicable coal mining regulations, including Utah Admin. Code R645-301-244.100 and -244.300.

128. The provisions of R645-301-421 and 301-423.100 require and the mine permit was properly conditioned upon issuance of an Air Quality Approval Order by the Utah Division of Air Quality.

129. By conditioning the mine permit approval upon issuance of the Air Quality Approval Order, the Division has ensured compliance with Utah Admin. Code R645-301-423.100.

130. An approved Air Quality Approval Order issued by DAQ will confirm that the air quality monitoring program, including the use of EPA Method 9, complies with Utah Admin. Code R645-301-423.100.

131. The Board concludes that the Permit Application contained sufficient information regarding fugitive dust control and monitoring to comply with Utah Code § 40-10-11(2)(a) and that the Division reached its decision regarding dust control on the basis of a complete and accurate application.

132. The Division appropriately approved the permit in advance of the Division of Air Quality's Approval Order in light of the condition imposed on the mine permit requiring issuance of the Air Quality Approval Order prior to commencing mining operations.

133. The applicable regulations at Utah Admin. Code R645-301-420 et seq. pertaining to air quality requirements for a permit mandate that the operator comply with fugitive dust control practices and provide a monitoring program approved by DAQ to comply with the requirements of the Clean Air Act and other applicable state and federal regulations, but these regulations do not require any evaluation or set any standards specific to the impacts of fugitive dust on the clarity of the night sky in particular.

134. To the extent that Petitioners' concern regarding impacts on night sky is related to fugitive dust, the Board concludes that the Fugitive Dust Control Plan adequately addresses that concern to the full extent of the Division's and Board's jurisdiction. To the extent that Petitioners' concern regarding the night sky is related to impacts other than fugitive dust, the Board concludes that the Division and the Board are without authority to regulate those impacts through Alton's surface coal mining and reclamation permit.

135. The Board concludes that the Division's determination that the permit application complied fully with the applicable statues and regulations was correct and proper in all respects.

ISSUE 10: Whether the Division's Cumulative Hydrologic Impact Assessment ("CHIA") for the Coal Hollow Mine unlawfully fails to establish at least one material damage criterion for each water quality or quantity characteristic that the Division requires ACD to monitor during the operations and reclamation period.

ISSUE 11: Whether the Division's cumulative hydrologic impact assessment for the Coal Hollow Mine unlawfully fails to designate the applicable Utah water quality standard for total dissolved solids (a maximum concentration of 1,200 milligrams per liter) as the material damage criterion for surface water outside the permit area.

FINDINGS OF FACT

136. Prior to approving the Permit, the Division prepared a Cumulative Hydrologic Impact Assessment ("CHIA") for the Coal Hollow Mine.

137. The CHIA adequately analyzed the hydrologic effects of the Coal Hollow Mine in light of all anticipated mining in the area.

138. The CHIA concluded that the mine was designed to prevent material damage to the hydrologic balance outside the permit area.

139. The CHIA did not establish a material damage criterion for each water quality parameter that the Division requires Alton to monitor during mining operations.

140. The CHIA identified 3000 milligrams per liter (mg/L) of Total Dissolved Solids ("TDS") in receiving waterbodies as the level beyond which material damage could occur to surface water quality outside the permit area. The evidence supports setting the value at this level.

141. Evidence in the record demonstrates that pre-mining levels of TDS in reaches of potentially-affected streams often exceed 1200 mg/L and can reach or exceed 3000 mg/L.

142. The Division explained that, in its judgment, setting a material damage criterion at 1200 mg/L TDS would make it impossible to discriminate between normal background levels and possible effects of mining.

143. Kanab Creek is a receiving waterbody under the Mine's UPDES permit, although the Mine is designed to prevent any discharge from leaving the site and reaching Kanab Creek. The Utah water quality standard for waters such as Kanab Creek is 1200 mg/L TDS.

144. The CHIA identified 3000 mg/L of TDS in springs or other groundwater discharges as the value that would indicate that an evaluation of whether the mine was causing material damage to groundwater quality outside the permit area should be undertaken. The evidence supports setting the value at this level.

145. In its Permit Application, Alton provided a Statement of Probable Hydrologic Consequences ("SPHC") that identified the probable adverse effects to the hydrologic balance in the permit and adjacent areas. The determination of probable hydrologic consequences ("PHCs") was made based on baseline hydrologic monitoring and field investigations and is supported by the weight of the evidence.

146. The Division's CHIA was based on the applicant's SPHC and the application of the professional judgment of the Division's experts to the specific and unique hydrologic and geologic conditions where the mine is proposed.

147. The mine's design included adequate measures to address the offsite effects of each of the PHCs.

148. Alton's expert witness, Erik Petersen, testified that he advised Alton of the probable hydrologic consequences of mining, participated in designing measures to prevent these consequences, and was satisfied that the mine, as designed, would prevent material damage to the hydrologic balance outside the permit area.

149. The testimony of Petitioner's expert witness, Charles Norris, was not as valuable to the Board because he did not review the mine's design and had no criticism of the design's effectiveness at preventing material damage to the hydrologic balance.

150. The Board views the witnesses of the Division and Alton to be more credible overall on this subject than Petitioners' witness and finds that at most the testimony of Petitioners' expert establishes a mere difference of opinion on an issue involving substantial technical analysis.

151. The Division's experts evidenced substantial knowledge, expertise and experience in hydrology and the evaluation of material damage for the CHIA.

152. The Coal Hollow Mine was designed to be a no-discharge facility, meaning that under foreseeable conditions, all mine waters and runoff would be captured on the site.

153. An increase in TDS concentrations in runoff from the mine site is improbable.

154. Notwithstanding the mine's zero-discharge design, a permit was issued under the UPDES system for point-source discharges to Lower Robinson Creek and Sink Valley Wash in the unlikely event that impoundments on the mine site were unable to contain runoff.

155. Any discharges from these points must not exceed applicable state water quality standards for the receiving water body.

156. The Coal Hollow Mine was designed to prevent material damage to the hydrologic balance outside the permit area.

157. Petitioners' evidence at hearing failed to prove that the design of the Coal Hollow Mine would not prevent material damage to the hydrologic balance outside the permit area.

158. The evaluation of material damage criteria in a CHIA involves a substantial degree of professional judgment and knowledge concerning hydrology, coal mining design and operations and applicable regulations. The Division's approach was generally consistent with

draft Guidelines prepared by the Federal office of Surface Mining Control and Reclamation. While application of some deference to the Division would be appropriate on this technical issue if the evidence presented a close call, the Board finds that the weight of the evidence supports the Division's findings and actions on this issue without any deference being necessary.

CONCLUSIONS OF LAW

159. Petitioners have failed to meet their burden of proving any error in the Division's approval of the permit application with regard to this issue.

160. The Division is required, as part of its review of the permit application, to prepare a CHIA to evaluate the impact of the mine on the hydrologic balance in light of all anticipated mining in the area. Utah Code § 40-10-11(2)(c).

161. Evaluation of hydrologic impacts in the CHIA is based on the statement of probable hydrologic consequences prepared by the applicant as part of its permit application, together with baseline hydrologic data and any additional information the Division may possess and find relevant. Utah Code § 40-10-10(2)(c)(i)(C).

162. In connection with this effort, the Division is to make a finding as to whether the proposed mine has been designed to prevent material damage to the hydrologic balance outside the permit area. Utah Code § 40-10-11(2)(c).

163. The Division made the required finding related to material damage.

164. The finding was made on the basis of a complete and accurate application.

165. The Board concludes that the CHIA prepared by the Division was adequate and that it made a sound scientific and technical judgment that the mine was designed to prevent

material damage to the hydrologic balance outside the permit area in light of the probable hydrologic consequences of mining.

166. No provision of the controlling statute or regulations requires designation of specific numeric values to define material damage criteria in the CHIA for each water quality or quantity parameter that will be monitored by the operator.

167. The Board does not construe any provision of its rules to require explicitly designating numeric material damage criteria in the CHIA.

168. Although Utah water quality standards are important and enforceable performance standards for discharges from the proposed project, the controlling statute and regulations do not mandate that these standards be employed as material damage criteria in the CHIA.

169. The Board concludes that the Division was not bound to establish the Utah water quality standard of 1,200 mg/L of TDS as a material damage criterion.

170. The Division's actions were consistent with the instruction in the federal Office of Surface Mining's 1985 OSM Draft Guidelines, and although the Guidelines are not legally-binding standards for the preparation of CHIA's in Utah under the Utah Administrative Rulemaking Act, Utah Code § 63G-3-101, they are useful in demonstrating the Division's CHIA determinations complied with those recommendations.

171. The Board concludes that the Division's decision is supported by the weight of the evidence and also concludes that it was not otherwise arbitrary and capricious because it has adequately explained its reasons for the choices made in its CHIA, and those reasons set forth a

rational and proper basis for the evaluation of potential material damage from the mining operations.

172. Although the Board finds that the Division's actions with respect to the CHIA are supported by the weight of the evidence, the Board notes, as it did in its order regarding the standard and scope of review, that the Division is entitled to rely on the expertise of its technical staff on issues involving substantial technical and scientific analysis. The Board notes that preparation of the CHIA involves such analysis.

173. As noted above, the Board found the testimony of the Division's and ACD's experts to be more credible overall than the testimony of the Petitioner's expert, and the weight of the expert testimony therefore favors the Division's actions on this issue. Even if it were viewed more favorably, the evidence provided by Petitioners' expert on this subject would at most demonstrate a mere difference of opinion regarding how the Division should incorporate water quality standards into its CHIA analysis. This evidence does not demonstrate error on the Division's part and does not warrant reversal or remand of the Division's approval of the permit application.

174. The Board concludes that the Division, in its CHIA analysis of potential material damage to the hydrologic balance, exercised its scientific and technical judgment properly and well within the bounds of reasonableness and rationality. Based on this conclusion and for the reasons set forth above concerning the weight of the evidence, the Board declines to disturb the Division's judgment and actions on this subject.

175. The Board concludes that the Division's determination that the permit application complied with the Utah coal regulations related to material damage criteria and related to the TDS criteria was correct and proper in all respects.

ISSUE 12: Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to describe how the monitoring data that ACD will collect may be used to determine the impacts of the Coal Hollow Mine upon the hydrologic balance.

FINDINGS OF FACT

176. The Coal Hollow MRP includes unambiguous statements about which explicitly-defined hydrologic features are to be monitored at each monitoring location.

177. The monitoring plan clearly defines the monitoring protocols to be used at each monitoring site (i.e., which flow, water level, and water quality parameters are to be analyzed).

178. The basis for monitoring each of the hydrologic features, and any potential impacts that may occur to these features as a result of mining, are clearly spelled out in the SPHC, which is a companion document to the monitoring plan.

179. The controlling regulations require the monitoring data to be submitted every three months and specify that when an analysis of the data indicates noncompliance with permit conditions the operator shall promptly notify the Division and immediately take the actions required by the regulations and the operating plan.

180. The Board finds that the provisions of the monitoring plans and related documents, both on their own and when read in conjunction with the regulations, address and adequately disclose how the monitoring data may be used.

181. Information and examples illustrating how to use and interpret the monitoring data to detect mining-related impacts are provided throughout the Coal Hollow Mine MRP. These interpretive techniques and tools include water quality analysis using Stiff diagrams, other graphical techniques specifically used for detection of down-gradient degradation in water quality, analysis of water quantity impacts using the Palmer Hydrologic Drought Index, detailed reaction chemistry for surface and groundwater, identification of which parameters might be expected to change if water adversely interacts with the Tropic Shale, and other data analysis tools.

CONCLUSIONS OF LAW

182. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

183. This Board's rules require that a permit application must include monitoring plans for surface water and groundwater. R645-301-731.211, 731.221. The plans must describe how the monitoring data will be used to determine the impacts of the operation on the hydrologic balance. Id. The rules do not indicate the level of detail an applicant must supply to comply with this requirement.

184. Even if Save Our Cumberland Mountains v. Office of Surface Mining, No. 97-3-PR (Dept. of the Interior, Office of Hearings & Appeals, July 30, 1998) (construing a parallel rule under the permanent Federal Program rather than the Utah Coal Rules) were to be treated by the Board as persuasive authority on this question, Alton's monitoring plan and companion documents exceed the amount of information that the ALJ in that case found to be insufficient.

Therefore, application of the ALJ's analysis to the facts of this case would not warrant reversal of the Division's decision.

185. The Board concludes that the hydrologic monitoring plans, both on their own as well as when read in conjunction with other information contained elsewhere within the overall Mining and Reclamation Plan ("MRP"), adequately describe how the monitoring data gathered may be used to determine the impacts of the mining operations on the hydrologic balance.

186. The Board concludes that no violation of R645-301-731 was demonstrated by the evidence presented at hearing, and that the Division reached its decision on the basis of a complete and accurate application. The Board therefore affirms the Division's findings on this issue.

187. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to information required to be included in hydrologic monitoring plans was correct and proper in all respects.

188. Board member Payne did not vote with the majority on this issue. His minority opinion is more fully set forth in the Board's August 3, 2010 Interim Order Concerning Disposition of Claims.[8]

ISSUE 13: Whether ACD's hydrologic operating plan is unlawfully incomplete because it fails to include remedial measures that ACD proposes to take if monitoring data show trends toward one or more material damage criteria.

[8] Unless otherwise specifically noted, the Board's decision on all issues in this matter was unanimous.

FINDINGS OF FACT

189. Rising TDS levels as a result of mining activities at Coal Hollow are an unlikely result of mining activity.

190. The Division and ACD presented evidence of preventative and remedial measures within the Mining and Reclamation Plan ("MRP") and the Board finds in general that such measures have been included as required by the rules.

191. The MRP includes preventive and remedial measures to address each of the probable hydrologic consequences of the Mine.

192. In many instances, the same measure can be either or both preventative and remedial.

193. Although the probability of rising TDS levels is low, the Board finds that the MRP, including its hydrologic operating plan, does identify measures which are both preventative and remedial to address potential increases in TDS.

194. The observation of trends may be helpful to guide the Division in evaluating the Mine's potential to affect the hydrologic balance, but remedial action is not mandated in response to trends and is properly left to the discretion of the Division.

CONCLUSIONS OF LAW

195. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

196. As a general requirement, this Board's rules provide that a monitoring plan must "address any potential adverse hydrologic consequences identified in the PHC determination" and "include preventative and remedial measures." Utah Admin Code R645-301-731.

197. While R645-301-731 requires the inclusion of both preventative and remedial measures in general, it does not specify the degree to which each type of measure must be included in the plan under differing circumstances and such determinations are within the discretion of the Division. The Division has expertise in this technical area and may exercise discretion as to the degree to which an applicant must include remedial measures when a particular potential hydrologic consequence has been judged to be improbable due to site conditions and/or the effectiveness of the specified preventative measures. In any event, as noted above, the Board finds based on the weight of the evidence that the MRP does include both preventative and remedial measures.

198. Rising TDS levels were not among the PHCs identified by the applicant and evidence presented to the Board did not demonstrate that rising TDS levels should have been identified as a PHC. R645-301-731 does not require preventative and remedial measures for adverse hydrologic consequences that are not included in the PHC determination prepared under R645-301-728.

199. The rules do not require that a plan must include remedial measures that are triggered by trends toward material damage criteria.

200. The Board concludes that no violation of R645-301-731 was demonstrated by the evidence presented at hearing, and that the Division reached its decision on the basis of a

complete and accurate application. The Board therefore affirms the Division's findings on this issue.

201. Board member Payne concurred with the decision of the remainder of the Board on this issue; however, he disagreed with the remainder of the Board's finding that the MRP does include remedial measures. His opinion is more fully set forth in the Board's August 3, 2010 Interim Order Concerning Disposition of Claims.

ISSUE 14: Whether ACD's geologic information is unlawfully incomplete because ACD failed to drill deeply enough to identify the first aquifer below the Smirl coal seam that may be adversely affected by mining.

FINDINGS OF FACT

202. The permit application contains a description of the geology of the permit and adjacent area down to and including the stratum immediately below the coal seam. This description is based on published geological literature, cross-sections, maps, and plans prepared by the applicant, and analysis of samples collected from test borings.

203. Alton collected and adequately analyzed samples for the potential of acid and toxic forming materials both above and below the coal seam, and included that information in its permit application.

204. Alton conducted a drilling program and collected cuttings and cores from locations within the project area including bore holes into the stratum immediately below the coal seam. Alton drilled boreholes into the Dakota Formation immediately below the coal seam, which provides information concerning the stratum underlying that seam.

205. Alton's expert examined fresh unweathered samples from rock outcrops, in addition to other evidence, in investigating and analyzing geology down to and including the stratum below the coal-seam.

206. The Division found this information adequate to meet geologic resource information requirements. The evidence supports the Division's finding in this regard.

207. The preponderance of evidence in the record supports the Division's finding that there is no aquifer below the Smirl coal seam which is likely to be affected by mining operations. Evidence adduced at the hearing did not establish the existence of such an aquifer.

208. The inquiry concerning potential aquifers below the coal seam involves substantial professional and technical judgment.

209. The testimony of Petitioners' expert on this subject, Elliott Lips, establishes at most a mere difference of opinion with the experts of the Division and ACD as to what that inquiry requires.

210. The Board finds that both the Division's witness, April Abate, and Alton's expert witness, Erik Petersen, provided more reliable and credible testimony regarding water resources in the Dakota Formation than Petitioner's expert. The weight of the expert testimony therefore favored the Division's actions with respect to this issue.

211. The Board did not find the deposition testimony of Division hydrologist, James Smith, offered into evidence by Petitioners, to be helpful in resolving this issue, and finds no

reason to credit the deposition testimony with equivalent weight to the live testimony of either April Abate or Erik Petersen.[9]

CONCLUSIONS OF LAW

212. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

213. The Utah Coal Mining and Reclamation Act ("UCMRA") requires that the applicant provide "chemical analyses of the stratum lying immediately underneath the coal to be mined." Utah Code § 40-10-10(2)(d)(i)(F).

214. This Board's rules require samples to be collected and analyzed from the deeper of either "the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam which may be adversely affected by mining." Utah Admin. Code R645-301-624.200 (2009). The rules also provide that "unweathered, uncontaminated samples from rock outcrops" may be examined as an alternative to test borings. Id.

215. Accordingly, if no aquifer exists below the coal seam in a position or under conditions where it may be adversely affected by mining, the required sampling and chemical analysis need not include stratum deeper than the stratum immediately below the coal seam.

216. Petitioners did not demonstrate that required sampling and analysis of strata below the coal seam was omitted.

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[9] The Board placed little weight on this deposition excerpt for similar reasons to those noted in footnote 7, above. The Board notes that the testimony concerning Exhibit 8 referenced in the deposition was of little probative value given that no real foundation or explanation pertaining to that exhibit was provided.

217. Petitioners did not prove that any required geologic information was omitted from the permit application regarding the coal seam or any higher stratum.

218. Petitioners did not prove that an aquifer exists at any depth below the coal seam where it might be affected by mining.

219. The Board concludes that the sampling and analysis requirements of Utah Code § 40-10-10(2)(d)(i)(F) and R645-301-624.100 and 624.200 were satisfied.

220. Petitioners did not demonstrate a violation of R645-301-624.210.

221. The Board concludes that no violation of the applicable statute and rules is demonstrated by the Division's decision not to require drilling into the Dakota Formation deeper than the immediately-lower-lying stratum sampled and analyzed by Alton.

222. Evidence in the record amply shows that the Division exercised its technical judgment based on adequate information and data supplied by the applicant.

223. The evidence presented does not demonstrate a violation of Utah Code § 40-10-11(2)(a) (requiring a complete and accurate permit application) by declining to require deeper drilling or otherwise provide further results of an investigation into the possibility of an affected aquifer in the Dakota Formation. Information in the Permit Application sufficiently sets forth a rational and proper basis for the technical judgments made. Additionally, the weight of the evidence supports the Division's actions.

224. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to drilling into, and otherwise investigating, the

stratum immediately below the coal seam or the first aquifer below the coal seam that may be adversely affected was correct and proper in all respects.

ISSUE 15: Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to establish monitoring stations:

(a) for surface water on Lower Robinson Creek immediately upgradient of the permit area; and

(b) for both surface and alluvial ground water in or adjacent to Lower Robinson Creek, immediately downgradient of the most downgradient discharge point from the seeps or springs that ACD and the Division have observed between monitoring points SW-101 and SW-5.

ISSUE 16: Whether ACD's baseline hydrologic data are unlawfully incomplete in one or more of the following respects:

(a) the data do not include even one flow rate or water quality entry during the data collection period at monitoring stations that ACD should have established on Lower Robinson Creek immediately upgradient of the permit area, and thus the data do not demonstrate seasonal variation at that location;

(b) the data do not include even one flow rate or water quality entry during the data collection period at a monitoring station that ACD should have established on Lower Robinson Creek immediately downgradient of the most downgradient discharge point from seeps and springs that ACD and the Division have observed between monitoring points SW-101 and SW-5, and thus the data do not demonstrate seasonal variation at that location; and

(c) none of the water quality data are verified by complete laboratory reports that establish an appropriate chain of custody and identify the sampling protocols that governed collection of each water sample.

FINDINGS OF FACT

225. Petitioners elected to abandon and not present any evidence regarding Issue 16(c). Accordingly, the Board finds that no evidence in the record establishes failure to observe any required custody procedures or sampling protocols.

226. At the hearing, Petitioners chose not to pursue claims 15 and 16 as they were articulated in their statement of issues alleging failure to demonstrate seasonal variation in water quantity and quality. Accordingly, the Board finds that no evidence presented at hearing

established a deficiency in the baseline monitoring data related to its suitability for evaluating seasonal variations.

227. The expert witness for ACD opined that the sites chosen for the monitoring stations allowed those stations to perform their function under the regulations and were selected based on the topographic and hydrologic characteristics of the locations relative to the location of mining operations and the hydrologic system outside of the permit area.

228. The locations of the monitoring sites were selected based on substantial prior investigations, review of the monitoring data, and a comprehensive examination of the hydrologic systems within the permit and adjacent area. They were chosen to demonstrate and determine the effect of mining operations on the surface and ground water systems and to monitor those effects so as to prevent material damage to the hydrologic balance outside of the permit area. The weight of the evidence demonstrates the appropriateness of the locations chosen for the monitoring stations.

229. The evidence establishes that the Division in its exercise of technical judgment approved the monitoring locations chosen.

230. The evidence supports the Division's determination that the monitoring plans are sufficient to detect material damage to the hydrologic balance outside of the permit area.

231. The absence of monitoring stations located at the exact spot of the upstream permit boundary and at the downstream extent of the bank seepage did not compromise Alton's ability to describe seasonal variation or detect material damage to the hydrologic balance.

232. The location of the downstream monitoring stations did not present a substantial risk of distortion in the data and the likelihood of gaining greater insight from stations at the exact permit boundaries is minimal.

233. Lower Robinson Creek is an ephemeral stream in its reach upstream of the permit area, and an intermittent stream at or below the permit area.

234. The "area of bank seepage" or seeps and springs on Lower Robinson Creek is adequately monitored in the baseline data and operational monitoring plan.

235. The selection of monitoring locations implicates the exercise of substantial scientific and technical judgment.

236. Significant scientific and technical judgment is implicated by the requirement to describe groundwater resources.

237. Monitoring for adverse impacts to the hydrologic balance outside of the permit area requires expertise and professional judgment concerning the locations chosen for monitoring in Lower Robinson Creek.

238. The testimony of Petitioners' expert on this issue evidences a difference of professional and technical opinion with the Division as to the locations of these monitoring stations.

239. Mr. Petersen's extensive experience over five years of observations and data collection activities at the mine site renders his opinion on the subject more persuasive than Mr.

Lips, who spent one day examining Lower Robinson Creek, took no samples, and made only crude flow measurements.

240. Each of the alleged deficiencies in the monitoring plan arising from location of monitoring stations was refuted by the testimony of Mr. Petersen.

241. The Board found the experts of ACD and the Division to be more reliable and credible than the Petitioners' expert with respect to this issue.

242. The Board was more persuaded by Mr. Smith and Mr. Petersen than by Mr. Lips and the weight of the expert testimony therefore favors the Division's actions on this issue. Even if it were viewed more favorably, the evidence provided by Petitioners' expert on this subject would at most demonstrate a mere difference of expert opinion with respect to this issue and would not be sufficient to demonstrate error on the Division's part.

243. The evidence presented at the hearing and in the record provides adequate technical basis for and supports the appropriateness of the locations of sampling stations with respect to the hydrology in and around Lower Robinson Creek.

CONCLUSIONS OF LAW

244. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

245. The Board concludes that Petitioners waived Issue 16(c). The Division's decision is affirmed on that point.

246. The Board's rules for collection of baseline hydrologic data for surface water require specific quantity measurements and chemical analyses, in an amount sufficient to demonstrate "seasonal variation." R645-301-724.200.

247. This Board's rule for baseline groundwater information is similar, requiring collection of information on "seasonal quality and quantity." R645-301-724.100.

248. No rule provides specific criteria for choosing the locations where the baseline data should be collected.

249. This Board's rules for the collection of operational monitoring data (i.e. data collected according to the monitoring plan after mining operations begin) for both surface water and groundwater require monitoring of specified parameters related to (1) the PHCs identified by the applicant, (2) the current and approved postmining land uses, and (3) the objectives for protection of the hydrologic balance set forth elsewhere in the Rules. R645-301-731.211, 731.221.

250. No rule provides specific criteria for choosing the locations where the operational monitoring data should be collected.

251. Petitioners did not prove that the baseline data collected on Lower Robinson Creek are insufficient to allow description of seasonal variation in water quality or quantity.

252. Petitioners did not prove that the operational monitoring data to be collected on Lower Robinson Creek during mining and reclamation will be insufficient to meet the objectives of the rules.

253. R645-301-724.100 requiring collection of location and ownership information for seeps and springs, and collection of seasonal quality and quantity data for groundwater, does not compel an applicant to collect quantity and quality data at every seep or spring within the permit and adjacent areas.

254. R645-301-731 sets forth general requirements for the operations plan but does not address placement of either baseline or operational monitoring stations.

255. R645-301-750 sets forth hydrologic performance standards but does not address placement of either baseline or operational monitoring stations.

256. The Board concludes that the standards for protection of the hydrologic balance on and off the permit area do not necessarily require placement of monitoring stations at the permit area boundaries.

257. The evidence did not demonstrate a violation of this Board's rules governing collection of baseline hydrologic data.

258. The evidence did not demonstrate a violation of this Board's rules governing hydrologic monitoring plans.

259. The Board concludes in light of the testimony of Alton's and the Division's experts and other evidence presented that the operational monitoring plan complies with R645-301-731.211 and 731.221 because it incorporates parameters that will adequately provide for detection and measurement of the identified PHCs, possible effects to current and postmining land uses, or protection of the hydrologic balance.

260. The baseline monitoring data submitted by Alton adequately describes the quality and quantity of groundwater in the permit and adjacent areas, including seasonal variations in quality and quantity.

261. The Board finds no violation of R645-301-731 or 750 in Alton's selection of baseline and operational monitoring sites on Lower Robinson Creek. The weight of the evidence supports the appropriateness of the sites chosen, and the Division and Alton presented a reasonable and proper basis for the selection of monitoring sites.

262. It is insufficient to prove error by producing evidence that another suite of data collection times, methods, and locations might have produced a different, or even more detailed, description of the resource. Petitioners did not prove that Alton's methods fell short of the controlling legal standards identified above.

263. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to the siting of baseline and operational hydrologic monitoring stations was correct and proper in all respects.

ISSUE 17: Whether the Division's determination that Sink Valley does not contain an alluvial valley floor is arbitrary, capricious, or otherwise inconsistent with applicable law.

FINDINGS OF FACT

264. The permit area and adjacent area occupy a portion of Sink Valley located north of Kane County Road #136. These lands do not consist of unconsolidated streamlaid deposits holding streams.

265. The topography of these portions of Sink Valley that include the permit and adjacent areas is devoid of a meandering stream that deposited sediment and other typical features of Alluvial Valley Floors ("AVFs") such as floodplains and terraces.

266. The surface morphology of Sink Valley in the permit and adjacent areas is consistent with an alluvial fan or fans and not consistent with the features of an AVF.

267. Sink Valley in and adjacent to the permit area is an upland area consisting of one or more alluvial fans.

268. A floodplain and terrace complex typical of an AVF is absent in this area.

269. Sink Valley Wash north of County Road #136 consists of fragments of an ephemeral stream channel that frequently disappears altogether.

270. Sink Valley Wash within Sink Valley is an erosional drainage feature and not a depositional stream associated with an AVF.

271. The Division's files include previous AVF investigations of a larger area beyond the permit area and adjacent area of the Coal Hollow Mine that included Sink Valley and the Alton Coal Field area.

272. The Division found, and the evidence shows, that the Coal Hollow application was factually distinct in material ways from the prior determinations, and that the application presented new information that supported a different finding.

273. The Division concluded that the regulations required specific factual determinations regarding the existence of geomorphic features required by the definition of an

AVF and uplands that were not considered in the prior determinations. The Division made additional geomorphologic investigations including site inspections to determine if the lands in question satisfied the definitions of an AVF.

274. The Division made hydrologic and geologic investigations and analysis necessary to make the eventual AVF finding that included all of the information from ACD's application, information from the Division's prior determinations and information from OSM.

275. The Division's AVF analysis was consistent with OSM's guidelines for Alluvial Valley Floor investigations.

276. Analysis of the hydrologic and geomorphologic features relevant to the AVF determination implicates a high degree of scientific and technical judgment. The Division appropriately exercised its scientific and technical judgment within reasonable and rational bounds in reaching its negative AVF determination, and the weight of the evidence supports the Division's determination.

277. While there was disagreement among the parties' expert witnesses in interpreting the geologic evidence, the Board found the Petitioners' expert to be less credible on this issue than those of the Division and ACD based upon background and experience. The weight of the expert testimony therefore favored the Division's determination on this issue.

278. The Division's conclusion that the area of Sink Valley at issue consisted of uplands that are excluded from the definition of an AVF was based on sound scientific and technical analysis and is supported by the weight of the evidence. Petitioners' evidence at hearing provided no persuasive reason to disturb the Division's conclusions.

279. The Board finds that the Division fully and conscientiously considered its previous determinations related to an AVF in Sink Valley, and to the extent that the present decision deviates from that former determination, the Division has set forth a reasonable and proper technical and scientific basis for that deviation.

280. The preponderance of evidence presented to the Board supports the Division's determination that no AVF exists in Sink Valley within the permit area or the adjacent area.

CONCLUSIONS OF LAW

281. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

282. In order to approve a permit application, the Division must find in writing subject to certain limited exceptions that the proposed mining operations will not "interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated." Utah Code § 40-10-11(2)(d)(i).

283. Both the UCMRA and this Board's rules define an AVF to mean "the unconsolidated stream-laid deposits holding streams with water availability sufficient for subirrigation or flood irrigation agricultural activities, but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits formed by unconcentrated runoff or slope wash, together with talus, or other mass-movement accumulations, and windblown deposits." Utah Code § 40-10-3(2); Utah Admin. Code R645-100-200.

284. This Board's rules define "Upland Areas" in the context of AVFs, to mean "those geomorphic features located outside the floodplain and terrace complex such as isolated higher terraces, alluvial fans, pediment surfaces, landslide deposits, and surfaces covered with residuum, mud flows, or debris flows, as well as highland areas underlain by bedrock and covered by residual weathered material or debris deposited by sheetwash, rillwash, or windblown material." R645-100-200.

285. This Board's rules specify the process the Division and applicant shall follow to determine the presence or absence of an AVF. If the applicant does not identify an AVF in its application, the Division must determine the presence or absence of an AVF based upon a detailed investigation, including possible follow-up studies. R645-302-321.100 – 321.300. Upon review of all information, "The Division will determine that an alluvial valley floor exists if it finds that: [u]nconsolidated streamlaid deposits holding streams are present; and [t]here is sufficient water to support agricultural activities. . . ." R645-302-321.300–321.320.

286. The Board interprets its rules to mean that the presence of upland areas is relevant to the AVF determination, and the Division did not err in determining that the upland areas of Sink Valley could not be an AVF.

287. The more specific language of the statutory and regulatory definition of AVF at R645-100-200, which excludes upland areas, controls the more general provisions of R645-302-321.300 et seq., which references two criteria also mentioned in the definition, but omits the exception for upland areas. The Division did not err in applying the definition's exclusion of upland areas when it made the determination required by R645-302-321.300.

288. Reading R645-302-321.300 et seq in harmony with the regulatory definition and the preceding subsection (R645-302-321.200–321.260, describing specific geologic, topographic, historic, and geologic information to be gathered by the applicant in its AVF investigation) compels the conclusion that the AVF determination entails a broader inquiry including consideration of whether the upland area exception applies. The Board finds no basis for mapping and describing floodplains and terraces, as required by the above rules, if the existence of such features is irrelevant to the final AVF determination.

289. The definition of upland areas as "geomorphic features outside the floodplain and terrace complex" means that a floodplain and terrace complex is an essential feature of an AVF and its absence is persuasive evidence that no AVF exists.

290. The preponderance of the evidence supports the Division's conclusion that no AVF exists in Sink Valley in the permit area or adjacent area.

291. The Board concludes that the Division did not act arbitrarily or capriciously in its treatment of prior decisions regarding possible AVFs in the same area. To the contrary, the Division conscientiously and thoroughly reviewed the prior decisions, and articulated sound and proper reasons for reaching a different decision in this matter. In any event, the weight of the evidence supports the Division's final determination on this issue.

292. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to its AVF determination was correct and proper in all respects.

ORDER

293. Consistent with the foregoing Findings of Fact and Conclusions of Law, the Board confirms the decision of the Division in this matter and grants the Coal Hollow Mine Permit.

294. Each of the issues, deficiencies and claims of error identified by Petitioners in their pleadings is denied.

295. The Board has considered and decided this matter as a formal adjudication, pursuant to the Utah Administrative Procedures Act, Utah Code Ann. §§ 63G–4–204 through 208, and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, Utah Admin. Code R641.

296. This Findings of Fact, Conclusions of Law, and Order ("**Order**") is based exclusively upon evidence of record in this proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, as required by the Utah Administrative Procedures Act, Utah Code Ann. § 63G–4–208, and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, Utah Admin. Code R641–109; and constitutes a final agency action as defined in the Utah Administrative Procedures Act and Board rules.

297. **Notice of Right of Judicial Review by the Supreme Court of the State of Utah.** As required by Utah Code Ann. §63G-4-208(1), the Board hereby notifies all parties to this proceeding that they have the right to seek judicial review of this Order by filing an appeal with the Supreme Court of the State of Utah within 30 days after the date this Order is entered. Utah Code Ann. §63G-4-401(3)(a) and 403.

298. **Notice of Right to Petition for Reconsideration.** As an alternative, but not as a prerequisite to judicial review, the Board hereby notifies all parties to this proceeding that they may apply for reconsideration of this Order. Utah Code Ann. § 63G–4–302, entitled "Agency Review – Reconsideration," states:

> (1) (a) Within 20 days after the date that an order is issued for which review by the agency or by a superior agency under Section 63G–4–301 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.
> (b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.
> (2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.
> (3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.
> (b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.

Id.

The Rules of Practice and Procedure before the Board of Oil, Gas and Mining entitled "Rehearing and Modification of Existing Orders" state:

> Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of that month.

Utah Admin. Code R641–110–100.

See Utah Administrative Code R641-110-200 for the required contents of a petition for rehearing. The Board hereby rules that should there be any conflict between the deadlines

provided in the Utah Administrative Procedures Act and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, the later of the two deadlines shall be available to any party moving to rehear this matter. If the Board later denies a timely petition for rehearing, the aggrieved party may seek judicial review of the order by perfecting an appeal with the Utah Supreme Court within 30 days thereafter.

299. The Board retains exclusive and continuing jurisdiction of all matters covered by this Order and of all parties affected thereby; and specifically, the Board retains and reserves exclusive and continuing jurisdiction to make further orders as appropriate and authorized by statute and applicable regulations.

300. The Chairman's signature on a facsimile copy of this Order shall be deemed the equivalent of a signed original for all purposes.

ISSUED this 22nd day of November, 2010.

Utah Board of Oil, Gas & Mining

Douglas E. Johnson

Douglas E. Johnson, Chairman

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing Order to be mailed by first class mail, postage prepaid, the 23 day of November, 2010, to:

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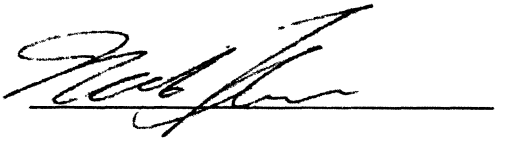

Tab 2

West's Utah Code Annotated Currentness
Title 9. Community and Culture Development
Chapter 8. History Development (Refs & Annos)
Part 4. Historic Sites
§ 9-8-404. Agency responsibilities--State historic preservation officer to comment on undertaking--Public Lands Policy Coordinating Office may require joint analysis

(1)(a) Before expending any state funds or approving any undertaking, each agency shall:

(i) take into account the effect of the expenditure or undertaking on any historic property; and

(ii) unless exempted by agreement between the agency and the state historic preservation officer, provide the state historic preservation officer with a written evaluation of the expenditure's or undertaking's effect on the historic property.

(b) Once per month, the state historic preservation officer shall provide the Public Lands Policy Coordinating Office with a list of undertakings on which an agency or federal agency has requested the state historic preservation officer's or the Antiquities Section's advice or consultation.

(c) The Public Lands Policy Coordinating Office may request the joint analysis described in Subsections (2)(c) and (d) of any proposed undertaking on which the state historic preservation officer or Antiquities Section is providing advice or consultation.

(2)(a) If the state historic preservation officer does not concur with the agency's written evaluation required by Subsection (1)(a)(ii), the state historic preservation officer shall inform the Public Lands Policy Coordinating Office of any objections.

(b) The Public Lands Policy Coordinating Office shall review the state historic preservation officer's objections and determine whether or not to initiate the joint analysis established in Subsections (2)(c) and (d).

(c) If the Public Lands Policy Coordinating Office determines further analysis is necessary, the Public Lands Policy Coordinating Office shall, jointly with the agency and the state historic preservation officer, analyze:

(i) the cost of the undertaking, excluding costs attributable to the identification, potential recovery, or excavation of historic properties;

(ii) the ownership of the land involved;

(iii) the likelihood of the presence and the nature and type of historical properties that may be affected by the expenditure or undertaking; and

(iv) clear and distinct alternatives for the identification, recovery, or excavation of historic properties, including ways to maximize the amount of information recovered and report that information at current standards of scientific rigor.

(d) The Public Lands Policy Coordinating Office, the agency, and the state historic preservation officer shall also consider as part of the joint analysis:

(i) the estimated costs of the alternatives in Subsection (2)(c)(iv) in total and as a percentage of the total cost of the undertaking; and

(ii) at least one plan for the identification, recovery, or excavation of historic properties that does not substantially increase the cost of the proposed undertaking.

(3)(a)(i) If the state historic preservation officer concurs with the agency's evaluation or if the Public Lands Policy Coordinating Office determines that the joint analysis is unnecessary, the state historic preservation officer shall, no later than 30 calendar days after receiving the agency's evaluation, provide formal comments on the agency's evaluation.

(ii) If a joint analysis is conducted, the state historic preservation officer shall provide formal comments on the agency's evaluation no later than 30 calendar days after the conclusion of the joint analysis.

(b) The state historic preservation officer shall ensure that the comments include the results of any joint analysis conducted under Subsection (2).

(c) If a joint analysis is not conducted, the state historic preservation officer's comments may include advice about ways to maximize the amount of historic, scientific, archaeological, anthropological, and educational information recovered, in addition to the physical recovery of specimens and the reporting of archaeological information at current standards of scientific rigor.

(4)(a) Once per month, the state historic preservation officer shall provide the Public Lands Policy Coordinating Office with a list of comments the state historic preservation officer intends to make or has made as required or authorized by the National Historic Preservation Act, 16 U.S.C. Sec. 470 et seq.

(b) At the request of the Public Lands Policy Coordinating Office, the state historic preservation officer shall discuss the comments with the Public Lands Policy Coordinating Office.

CREDIT(S)

Laws 1990, c. 115, § 4; Laws 1992, c. 241, § 328; Laws 1992, c. 286, § 10; Laws 1995, c. 170, § 8, eff. July 1, 1995; Laws 2005, c. 145, § 2, eff. May 2, 2005; Laws 2006, c. 292, § 4, eff. May 1, 2006.

Codifications C. 1953, § 63-18-37.

Current through 2011 Second Special Session.

END OF DOCUMENT

Tab 3

West's Utah Code Annotated Currentness
Title 40. Mines and Mining
Chapter 10. Coal Mining and Reclamation (Refs & Annos)
§ 40-10-11. Division action on permit application--Requirements for approval--List of applicant's mining law violation--Restoration of prime farmland

(1)(a)(i) After a complete mining application and reclamation plan or a revision or renewal of an application and plan is submitted to the division as required by this chapter and the public is notified and given an opportunity for a hearing as required by Section 40-10-13, the division shall grant, require modification of, or deny the permit application.

(ii) The division shall make its decision within a reasonable time set by the division and notify the applicant in writing.

(b) The applicant for a permit, or a revision of a permit shall have the burden of establishing that the application is in compliance with all requirements of this chapter.

(c) Within 10 days after the granting of a permit, the division shall provide to the local governmental officials in the local political subdivision in which the area of affected land is located:

(i) notification that a permit has been issued; and

(ii) a description of the location of the land.

(2) No permit or revision application shall be approved unless the application affirmatively demonstrates and the division finds in writing on the basis of the information set forth in the application, or from information otherwise available which will be documented in the approval and made available to the applicant, that:

(a) the permit application is accurate and complete and that all requirements of this chapter have been complied with;

(b) the applicant has demonstrated that the reclamation requirements under this chapter can be accomplished under the reclamation plan contained in the permit application;

(c) the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance specified in Subsection 40-10-10(2)(c) has been made by the division and the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area;

(d) the area proposed to be mined is not included within an area:

(i) designated as unsuitable for surface coal mining pursuant to Section 40-10-24; or

(ii) under study for this designation in an administrative proceeding commenced under Subsection 40-10-24(2), unless the operator demonstrates that prior to January 1, 1977, substantial legal and financial commitments were made to the operation;

(e) the proposed surface coal mining operation would not:

(i) interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated other than on:

(A) undeveloped range lands that are not significant to farming on alluvial valley floors; or

(B) lands which the division finds are of such small acreage that if farming is interrupted, discontinued, or precluded, the impact on the farm's agricultural production will be negligible; or

(ii) materially damage the quantity or quality of water in surface or underground water systems that supply alluvial valley floors specified in Subsection (2)(e)(i), but this Subsection (2)(e) shall not affect those surface coal mining operations which in the year preceding August 3, 1977, produced coal in commercial quantities and were located within or adjacent to alluvial valley floors or had obtained specific permit approval by the division to conduct surface coal mining operations within these alluvial valley floors; and

(f) if the private mineral estate has been severed from the private surface estate, the applicant has submitted to the division:

(i) the written consent of the surface owner to the extraction of coal by surface mining methods provided that nothing in this Subsection (2) shall be construed to:

(A) increase or diminish any property right established under the laws of the state; or

(B) authorize the board or division to adjudicate property right disputes;

(ii) a conveyance that expressly grants or reserves the right to extract the coal by surface mining methods; or

(iii) documentation consistent with state law that establishes the status of the surface-subsurface legal relationship.

(3)(a)(i) The applicant shall file with the permit application a list of any notices of violations of the Surface Mining Control and Reclamation Act of 1977 or its implementing regulations, this chapter, any state or federal program or law approved under the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. Sec. 1201 et seq., and any law, rule, or regulation of the United States, State of Utah, or any department or agency in the United States pertaining to air or water environmental protection incurred by the applicant in connection with any surface coal mining operation during the three-year period prior to the date of application.

(ii) The list required in Subsection (3)(a)(i) shall also indicate the final resolution of any notice of violation.

(b) If the list or other information available to the division indicates that any surface coal mining operation owned or controlled by the applicant is currently in violation of this chapter or other laws and regulations referred to in this Subsection (3), the permit shall not be issued until the applicant submits proof that the violation has been corrected or is in the process of being corrected to the satisfaction of the division, department, or agency which has jurisdiction over the violation.

(c) No permit shall be issued to an applicant after a finding by the board, after opportunity for hearing, that the applicant, or the operator specified in the application, controls or has controlled mining operations with a demonstrated pattern of willful violations of this chapter, the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. Sec. 1201 et seq., the implementing federal regulations, any state or federal programs enacted under the Surface Mining Control and Reclamation Act, or other provisions of the approved Utah program of such nature and duration with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of this chapter.

(4)(a)(i) In addition to finding the application in compliance with Subsection (2), if the area proposed to be mined contains prime farmland pursuant to division rules, the division shall grant a permit to mine on prime farmland if the division finds in writing that the operator has the technological capability to restore the mined area within a reasonable time to an equivalent or higher level of yield as nonmined prime farmland in the surrounding area under equivalent levels of management and can meet the soil reconstruction standards specified in divi-

sion rules.

(ii) Except for compliance with Subsection (2), the requirements of this subsection shall apply to all permits issued after August 3, 1977.

(b) This Subsection (4) shall not apply to any permit issued prior to August 3, 1977, or to any revisions or renewals of the permit, or to any existing surface mining operations for which a permit was issued prior to August 3, 1977.

(5)(a) After October 24, 1992, the prohibition of Subsection (3) shall not apply to a permit application if the violation resulted from an unanticipated event or condition that occurred at a surface coal mining operation on lands eligible for remining under a permit held by the person making the application.

(b) As used in this Subsection (5), the term "violation" has the same meaning as the term has under Subsection (3).

CREDIT(S)

Laws 1979, c. 145, § 1; Laws 1981, c. 175, § 2; Laws 1994, c. 219, § 8; Laws 1997, c. 99, § 2, eff. May 5, 1997; Laws 1998, c. 197, § 1, eff. May 4, 1998; Laws 2004, c. 230, § 1, eff. May 3, 2004; Laws 2009, c. 309, § 1, eff. May 12, 2009.

Current through 2011 Second Special Session.

END OF DOCUMENT

Tab 4

West's Utah Code Annotated Currentness
Title 40. Mines and Mining
Chapter 10. Coal Mining and Reclamation (Refs & Annos)
§ 40-10-30. Judicial review of rules or orders

(1) Judicial review of adjudicative proceedings under this chapter is governed by Title 63G, Chapter 4, Administrative Procedures Act, and provisions of this chapter consistent with the Administrative Procedures Act.

(2) Judicial review of the board's rulemaking procedures and rules adopted under this chapter is governed by Title 63G, Chapter 3, Utah Administrative Rulemaking Act.

(3) An appeal from an order of the board shall be directly to the Utah Supreme Court and is not a trial de novo. The court shall set aside the board action if it is found to be:

(a) unreasonable, unjust, arbitrary, capricious, or an abuse of discretion;

(b) contrary to constitutional right, power, privilege, or immunity;

(c) in excess of statutory jurisdiction, authority, or limitations;

(d) not in compliance with procedure required by law;

(e) based upon a clearly erroneous interpretation or application of the law; or

(f) as to an adjudicative proceeding, unsupported by substantial evidence on the record.

(4) An action or appeal involving an order of the board shall be determined as expeditiously as feasible and in accordance with Section 78A-3-102. The Utah Supreme Court shall determine the issues on both questions of law and fact and shall affirm or set aside the rule or order, enjoin or stay the effective date of agency action, or remand the cause to the board for further proceedings. Judicial review of disputed issues of fact shall be confined to the agency record. The court may, in its discretion, receive additional evidence for good cause shown.

(5) If the board fails to perform any act or duty under this chapter which is not discretionary, the aggrieved person may bring an action in the district court of the county in which the oper-

ation or proposed operation is located.

CREDIT(S)

Laws 1985, c. 94, § 7; Laws 1986, c. 47, § 24; Laws 1994, c. 219, § 24; Laws 2008, c. 3, § 85, eff. Feb. 7, 2008; Laws 2008, c. 382, § 535, eff. May 5, 2008.

Current through 2011 Second Special Session.

END OF DOCUMENT

Tab 5

R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-100. Administrative: Introduction.
R645-100-200. Definitions.

As used in the R645 Rules, the following terms have the specified meanings:

"Abandoned site" means, for the purpose of R645-400, a coal mining and reclamation operation for which the Division has found in writing that,

(a) All coal mining and reclamation operations at the site have ceased;

(b) The Division has issued at least one notice of violation or the initial program equivalent, and either:

(i) Is unable to serve the notice despite diligent efforts to do so; or

(ii) The notice was served and has progressed to a failure-to-abate cessation order or the initial program equivalent;

(c) The Division:

(i) Is taking action to ensure that the permittee and operator, and owners and controllers of the permittee and operator, will be precluded from receiving future permits while violations continue at the site; and

(ii) Is taking action pursuant to section 40-10-20(5), 40-10-20(6), 40-10-22(1)(d), or 40-10-22(2)(a) of the Act to ensure that abatement occurs or that there will not be a recurrence of the failure-to-abate, except where after evaluating the circumstances it concludes that further enforcement offers little or no likelihood of successfully compelling abatement or recovering any reclamation costs; and

(d) Where the site is, or was, permitted and bonded:

(i) The permit has either expired or been revoked; and

(ii) The Division has initiated and is diligently pursuing forfeiture of, or has forfeited any available performance bond.

(e) In lieu of the inspection frequency established in R645-400-130, the Division shall inspect each abandoned site on a set frequency commensurate with the public health and safety and environmental considerations present at each specific site, but in no case shall the inspection frequency be set at less than one complete inspection per calendar year.

(1) In selecting an alternate inspection frequency authorized under part (e) of this definition, the Division shall first conduct a complete inspection of the abandoned site and provide public notice under paragraph (2) below. Following the inspection and public notice, the Division shall prepare and maintain for public review a written finding justifying the alternative inspection frequency selected. This written finding shall justify the new inspection frequency by affirmatively addressing in detail all of the following criteria:

(i) How the site meets each of the criteria under the definition of an abandoned site and thereby qualifies for a reduction in inspection frequency;

(ii) Whether, and to what extent, there exist on the site impoundments, earthen structures or other conditions that pose, or may reasonably be expected to change into, imminent dangers to the health or safety of the public or significant environmental harms

to land, air or water resources;

(iii) The extent to which existing impoundments or earthen structures were constructed and certified in accordance with prudent engineering designs approved in the permit;

(iv) The degree to which erosion and sediment control is present and functioning;

(v) The extent to which the site is located near or above urbanized areas, communities, occupied dwellings, schools and other public or commercial buildings and facilities;

(vi) The extent of reclamation completed prior to abandonment and the degree of stability of unreclaimed areas, taking into consideration the physical characteristics of the land mined and the extent of settlement or revegetation that has occurred naturally with time; and

(vii) Based on a review of the complete and partial inspection report record for the site during at least the last two consecutive years, the rate at which adverse environmental or public health and safety conditions have and can be expected to progressively deteriorate.

(2) The public notice and opportunity to comment required under part (e)(1) of this definition shall be provided as follows:

(i) The Division shall place a notice in the newspaper with the broadest circulation in the locality of the abandoned site providing the public with a 30-day period in which to submit written comments.

(ii) The public notice shall contain the permittee's name, the permit number, the precise location of the land affected, the inspection frequency proposed, the general reasons for reducing the inspection frequency, the bond status of the permit, the telephone number and address of the office where written comments on the reduced inspection frequency may be submitted, and the closing date of the comment period.

"Account" means the Abandoned Mine Reclamation Account established pursuant to Section 40-10-25 of the Act.

"Acid Drainage" means water with a pH of less than 6.0 and in which total acidity exceeds total alkalinity discharged from an active, inactive, or abandoned coal mining and reclamation operation, or from an area affected by coal mining and reclamation operations.

"Acid-Forming Materials" means earth materials that contain sulfide minerals or other materials which, if exposed to air, water, or weathering processes, form acids that may create acid drainage.

"Act" means Utah Code Annotated Section 40-10-1 et seq.

"Adjacent Area" means the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations, including probable impacts from underground workings.

"Administratively Complete Application" means an application for permit approval or approval for coal exploration, where required, which the Division determines to contain information addressing each application requirement of the State Program and to contain all information necessary to initiate processing and

public review.

"Affected Area" means any land or water surface area which is used to facilitate, or is physically altered by, coal mining and reclamation operations. The affected area includes the disturbed area; any area upon which coal mining and reclamation operations are conducted; any adjacent lands the use of which is incidental to coal mining and reclamation operations; all areas covered by new or existing roads used to gain access to, or for hauling coal to or from coal mining and reclamation operations, except as provided in this definition; any area covered by surface excavations, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas, shipping areas; any areas upon which are sited structures, facilities, or other property material on the surface resulting from, or incident to, coal mining and reclamation operations; and the area located above underground workings. The affected area shall include every road used for purposes of access to, or for hauling coal to or from, coal mining and reclamation operations, unless the road (a) was designated as a public road pursuant to the laws of the jurisdiction in which it is located; (b) is maintained with public funds, and constructed, in a manner similar to other public roads of the same classification within the jurisdiction; and (c) there is substantial (more than incidental) public use. Editorial Note: The definition of "Affected area", insofar, as it excludes roads which are included in the definition of "Surface coal mining operations", was suspended at 51 FR 41960, Nov. 20, 1986. Accordingly, Utah suspends the definition of Affected Area insofar as it excludes roads which are included in the definition of "coal mining and reclamation operations."

"Agricultural Use" means the use of any tract of land for the production of animal or vegetable life. The uses include, but are not limited to, the pasturing, grazing, and watering of livestock, and the cropping, cultivation, and harvesting of plants.

"Alluvial Valley Floors" means the unconsolidated stream-laid deposits holding streams with water availability sufficient for subirrigation or flood irrigation agricultural activities, but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits formed by unconcentrated runoff or slope wash, together with talus, or other mass-movement accumulations, and windblown deposits.

"Applicant" means any person seeking a permit, permit change, and permit renewal, transfer, assignment, or sale of permit rights from the Division to conduct coal mining and reclamation operations or, where required, seeking approval for coal exploration.

"Application" means the documents and other information filed with the Division under the R645 Rules for the issuance of permits; permit changes; permit renewals; and transfer, assignment, or sale of permit rights for coal mining and reclamation operations or, where required, for coal exploration.

"Approximate Original Contour" means that surface

configuration achieved by backfilling and grading of the mined areas so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain with all highwalls, spoil piles, and coal refuse piles having a design approved under the R645 Rules and prepared for abandonment. Permanent water impoundments may be permitted where the Division has determined that they comply with R645-301-413.100 through R645-301-413.334, R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-542.400, R645-301-733.220 through R645-301-733.224, R645-301-743, R645-302-270 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900.

"Aquifer" means a zone, stratum, or group of strata that can store and transmit water in sufficient quantities for a specific use.

"Arid and Semiarid Area" means, in the context of ALLUVIAL VALLEY FLOORS, an area where water use by native vegetation equals or exceeds that supplied by precipitation. All coalfields in Utah are in arid and semiarid areas.

"Auger Mining" means a method of mining coal at a cliff or highwall by drilling holes into an exposed coal seam from the highwall and transporting the coal along an auger bit to the surface.

"Best Technology Currently Available" means equipment, devices, systems, methods, or techniques which will (a) prevent, to the extent possible, additional contributions of suspended solids to stream flow or runoff outside the permit area, but in no event result in contributions of suspended solids in excess of requirements set by applicable state or federal laws; and (b) minimize, to the extent possible, disturbances and adverse impacts on fish, wildlife, and related environmental values, and achieve enhancement of those resources where practicable. The term includes equipment, devices, systems, methods, or techniques which are currently available anywhere as determined by the Director, even if they are not in routine use. The term includes, but is not limited to, construction practices, siting requirements, vegetation selection and planting requirements, animal stocking requirements, scheduling of activities, and design of sedimentation ponds in accordance with R645-301 and R645-302. Within the constraints of the State Program, the Division will have the discretion to determine the best technology currently available on a case-by-case basis, considering among other things the economic feasibility of the equipment, devices, systems, methods or techniques, as authorized by the Act and the R645 Rules.

"Blaster" means a person who is directly responsible for the use of explosives in connection with surface blasting operations incidental to UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES or SURFACE COAL MINING AND RECLAMATION ACTIVITIES, and who holds a valid certificate issued by the Division in accordance with the statutes and regulations administered by the Division governing training, examination, and certification of persons responsible

for the use of explosives in connection with surface blasting operations incident to coal mining and reclamation operations.

"Board" means the Board of Oil, Gas and Mining for the state of Utah, or the Board's delegated representative.

"Cemetery" means any area of land where human bodies are interred.

"Coal" means combustible carbonaceous rock, classified as anthracite, bituminous, subbituminous, or lignite by ASTM Standard D388-95.

"Coal Exploration" means the field gathering of: (a) surface or subsurface geologic, physical, or chemical data by mapping, trenching, drilling, geophysical, or other techniques necessary to determine the quality and quantity of overburden and coal of an area; or (b) the gathering of environmental data to establish the conditions of an area before beginning coal mining and reclamation operations under the requirements of the R645 Rules.

"Coal Mine Waste" means coal processing waste and underground development waste.

"Coal Mining and Reclamation Operations" means (a) activities conducted on the surface of lands in connection with a surface coal mine or, subject to the requirements of Section 40-10-18 of the Act, surface coal mining and reclamation operations and surface impacts incident to an underground coal mine, the products of which enter commerce or the operations of which directly or indirectly affect interstate commerce. Such activities include all activities necessary and incidental to the reclamation of the operations, excavation for the purpose of obtaining coal, including such common methods as contour, strip, auger, mountaintop removal, box cut, open pit, and area mining; the use of explosives and blasting; in-situ distillation; or retorting, leaching, or other chemical or physical processing; and the cleaning, concentrating, or other processing or preparation of coal. Such activities also include the loading of coal for interstate commerce at or near the mine site. Provided, these activities do not include the extraction of coal incidental to the extraction of other minerals, where coal does not exceed 16-2/3 percent of the tonnage of minerals removed for purposes of commercial use or sale, or coal exploration subject to Section 40-10-8 of the Act; and, provided further, that excavation for the purpose of obtaining coal includes extraction of coal from coal refuse piles; and (b) the areas upon which the activities described under part (a) of this definition occur or where such activities disturb the natural land surface. These areas will also include any adjacent land the use of which is incidental to any such activities, all lands affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of those activities and for haulage and excavation, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas, processing areas, shipping areas, and other areas upon which are sited structures, facilities, or other property or material on the surface, resulting from or incident to those activities.

"Coal Mining and Reclamation Operations Which Exist on the Date of Enactment" means all coal mining and reclamation operations which were being conducted on August 3, 1977.

"Coal Preparation or Coal Processing" means the chemical and physical processing and the cleaning, concentrating, or other processing or preparation of coal.

"Coal Processing Plant" means a facility where coal is subjected to chemical or physical processing or the cleaning, concentrating, or other processing or preparation. Coal processing plant includes facilities associated with coal processing activities, such as, but not limited to, the following: loading facilities; storage and stockpile facilities; sheds, shops, and other buildings; water-treatment and water-storage facilities; settling basins and impoundments; and coal processing and other waste disposal areas.

"Coal Processing Waste" means earth materials which are separated from the product coal during cleaning, concentrating, or the processing or preparation of coal.

"Collateral Bond" means an indemnity agreement in a sum certain executed by the permittee as principal which is supported by the deposit with the Division of: (a) a cash account, which will be the deposit of cash in one or more federally-insured or equivalently protected accounts, payable only to the Division upon demand, or the deposit of cash directly with the Division; (b) negotiable bonds of the United States, a State, or a municipality, endorsed to the order of, and placed in the possession of, the Division; (c) negotiable certificates of deposit, made payable or assigned to the Division and placed in its possession, or held by a federally insured bank; (d) an irrevocable letter of credit of any bank organized or authorized to transact business in the United States payable only to the Division upon presentation; (e) a perfected, first lien security interest in real property in favor of the Division; or (f) other investment grade rated securities having a rating of AAA or AA or A, or an equivalent rating issued by a nationally recognized securities rating service, endorsed to the order of, and placed in the possession of, the Division.

"Combustible Material" means organic material that is capable of burning, either by fire or through oxidation, accompanied by the evolution of heat and a significant temperature rise.

"Community or Institutional Building" means any structure, other than a public building or an occupied dwelling, which is used primarily for meetings, gatherings or functions of local civic organizations or other community groups; functions including, but not limited to educational, cultural, historic, religious, scientific, correctional, mental-health or physical-health care facility; or is used for public services, including, but not limited to, water supply, power generation, or sewage treatment.

"Compaction" means increasing the density of a material by reducing the voids between the particles, and is generally accomplished by controlled placement and mechanical effort such as from repeated application of wheel, track, or roller loads from heavy equipment.

"Complete and Accurate Application" means an application for permit approval or approval for coal exploration, where required, which the Division determines to contain all information required under the Act, the R645 Rules, and the State Program that is necessary to make a decision on permit issuance.

"Continuously Mined Areas" means land which was mined for coal by underground mining operations prior to August 3, 1977, the effective date of the Federal Act, and where mining continued after that date.

"Cooperative Agreement" means the agreement between the Governor of the State of Utah and the Secretary of the Department of the Interior as published at 30 CFR 944.30.

"Cropland" means land used for the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops, and other similar specialty crops.

"Cumulative Impact Area" means the area, including the permit area, within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and groundwater systems. Anticipated mining will include, at a minimum, the entire projected lives through bond releases of: (a) the proposed operation, (b) all existing operations, (c) any operation for which a permit application has been submitted to the Division, and (d) all operations required to meet diligent development requirements for leased federal coal for which there is actual mine development information available.

"Cumulative measurement period" means, for the purpose of R645-106, the period of time over which both cumulative production and cumulative revenue are measured.

(a) For purposes of determining the beginning of the cumulative measurement period, subject to Division approval, the operator must select and consistently use one of the following:

(i) For mining areas where coal or other minerals were extracted prior to August 3, 1977, the date extraction of coal or other minerals commenced at that mining area or August 3, 1977, or

(ii) For mining areas where extraction of coal or other minerals commenced on or after August 3, 1977, the date extraction of coal or other minerals commenced at that mining area, whichever is earlier.

(b) For annual reporting purposes pursuant to R645-106-900, the end of the period for which cumulative production and revenue is calculated is either

(i) For mining areas where coal or other minerals were extracted prior to July 1, 1992, June 30, 1992, and every June 30 thereafter; or

(ii) For mining areas where extraction of coal or other minerals commenced on or after July 1, 1992, the last day of the calendar quarter during which coal extraction commenced, and each anniversary of that day thereafter.

"Cumulative production" means, for the purpose of R645-106, the total tonnage of coal or other minerals extracted from a mining area during the cumulative measurement period. The inclusion of stockpiled coal and other mineral tonnages in this total is governed by R645-106-700.

"Cumulative revenue" means, for the purpose of R645-106, the total revenue derived from the sale of coal or other minerals and the fair market value of coal or other minerals transferred or used, but not sold, during the cumulative measurement period.

"Current Assets" means cash or other assets or resources which are reasonably expected to be converted to cash or sold or consumed within one year or within the normal operating cycle of the business.

"Current Liabilities" means obligations which are reasonably expected to be paid or liquidated within one year or within the normal operating cycle of the business.

"Direct Financial Interest" means ownership or part ownership by an employee of lands, stocks, bonds, debentures, warrants, partnership shares, or other holdings, and also means any other arrangement where the employee may benefit from his or her holding in or salary from coal mining and reclamation operations. Direct financial interests include employment, pensions, creditor, real property, and other financial relationships.

"Director" means the Director, Utah State Division of Oil, Gas and Mining, or the Director's representative.

"Director of the Office" means the Director of the Office of Surface Mining, Reclamation and Enforcement, U.S. Department of the Interior.

"Disturbed Area" means an area where vegetation, topsoil, or overburden is removed or upon which topsoil, spoil, coal processing waste, underground development waste, or noncoal waste is placed by coal mining and reclamation operations. Those areas are classified as disturbed until reclamation is complete and the performance bond or other assurance of performance required by R645-301-800 is released. For the purposes of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763, disturbed area will not include those areas (a) in which the only coal mining and reclamation operations include diversion ditches, siltation structures, or roads that are designed, constructed and maintained in accordance with R645-301 and R645-302; and (b) for which the upstream area is not otherwise disturbed by the operator.

"Diversion" means a channel, embankment, or other man-made structure constructed to divert water from one area to another.

"Division" means Utah State Division of Oil, Gas and Mining, the designated state regulatory authority.

"Downslope" means the land surface between the projected outcrop of the lowest coalbed being mined along each highwall and a valley floor.

"Edge Effect" means the positive effect created by the juxtaposition of two diverse habitats.

"Embankment" means an artificial deposit of material that is raised above the natural surface of the land and used to contain, divert, or store water, support roads or railways, or for other similar purposes.

"Employee" means any person employed by the Division who performs any function or duty under the Act, and does not mean the Board of Oil, Gas and Mining which is excluded from this definition.

"Ephemeral Stream" means a stream which flows only in direct response to precipitation in the immediate watershed, or in response to the melting of a cover of snow and ice, and which has a channel bottom that is always above the local water table.

"Essential Hydrologic Functions" means the role of an ALLUVIAL VALLEY FLOOR in collecting, storing, regulating, and making the natural flow of surface or ground water, or both, usefully available for agricultural activities by reason of the valley floor's topographic position, the landscape, and the physical properties of its underlying materials. A combination of these functions provides a water supply during extended periods of low precipitation.

"Excess Spoil" means spoil material disposed of in a location other than the mined-out area, provided that the spoil material used to achieve the approximate original contour or to blend the mined-out area with the surrounding terrain in accordance with R645-301-553.220 in nonsteep slope areas will not be considered excess spoil.

"Existing Structure" means a structure or facility used in connection with or to facilitate coal mining and reclamation operations for which construction began prior to January 21, 1981.

"Extraction of Coal as an Incidental Part" means the extraction of coal which is necessary to enable government-financed construction to be accomplished. For purposes of R645-102, only that coal extracted from within the right-of-way in the case of a road, railroad, utility line, or other such construction, or within the boundaries of the area directly affected by other types of government-financed construction, may be considered incidental to that construction. Extraction of coal outside the right-of-way or boundary of the area directly affected by the construction will be subject to the requirements of the Act and the R645 Rules.

"Federal Act" means the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87).

"Federal Lands" means any land, including mineral interests, owned by the United States without regard to how the United States acquired ownership of the lands or which agency manages the lands. It does not include Indian lands.

"Fixed Assets" means plants and equipment, but does not include land or coal in place.

"Flood Irrigation" means, with respect to ALLUVIAL VALLEY FLOORS, supplying water to plants by natural overflow or the diversion of flows, so that the irrigated surface is largely covered by a sheet of water.

"Fragile Lands" means, for the purposes of R645-103-300, geographic areas containing natural, ecologic, scientific, or aesthetic resources that could be significantly damaged or be destroyed by coal mining and reclamation operations. Examples of fragile lands include valuable habitats for fish or wildlife, critical habitats for endangered or threatened species of animals or plants, uncommon geologic formations, paleontological sites, National Natural Landmark sites, areas where mining may result in flooding, environmental corridors containing a concentration of ecologic and aesthetic features, areas of recreational value due

to high environmental quality.

"Fugitive Dust" means that particulate matter not emitted from a duct or stack which becomes airborne due to the forces of wind or coal mining and reclamation operations, or both. During coal mining and reclamation operations, it may include emissions from haul roads; wind erosion of exposed surfaces, storage piles, and spoil piles; reclamation operations; and other activities in which material is either removed, stored, transported, or redistributed.

"Fund" means the Abandoned Mine Reclamation Account established pursuant to 40-10-25 of the Act.

"Government-Financed Construction" means, for the purposes of R645-102, construction funded 50 percent or more by funds appropriated from a government-financing agency's budget or obtained from general revenue bonds, but will not mean government-financing agency guarantees, insurance, loans, funds obtained through industrial revenue bonds or their equivalent, or in-kind payments.

"Government Financing Agency" means, for the purposes of R645-102 a federal, state, county, municipal, or local unit of government, or a department, bureau, agency or office of the unit which, directly or through another unit of government, finances construction.

"Gravity Discharge" means, with respect to UNDERGROUND MINING AND RECLAMATION ACTIVITIES, mine drainage that flows freely in an open channel downgradient. Mine drainage that occurs as a result of flooding a mine, to the level of the discharge, is not gravity discharge.

"Ground Cover" means the area of ground covered by the combined aerial parts of vegetation and the litter that is produced naturally on-site, expressed as a percentage of the total area of measurement.

"Ground Water" means subsurface water that fills available openings in rock or soil materials to the extent that they are considered water saturated.

"Habitats of Unusually High Value for Fish and Wildlife" means an area defined by the state as crucial-critical use areas for wildlife.

"Half-Shrub" means a perennial plant with a woody base whose annually produced stems die back each year.

"Head-of-Hollow Fill" means a fill structure consisting of any material, other than organic material, placed in the uppermost reaches of a hollow where side slopes of the existing hollow, measured at the steepest point, are greater than 20 degrees, or the average slope of the profile of the hollow from the toe of the fill to the top of the fill, is greater than ten degrees. In head-of-hollow fills, the top surface of the fill, when completed, is at approximately the same elevation as the adjacent ridge line, and no significant area of natural drainage occurs above the fill draining into the fill area.

"Higher or Better Uses" means postmining land uses that have a higher economic value or nonmonetary benefit to the landowner, or the community, than the premining land uses.

"Highwall" means the face of exposed overburden and coal in

an open cut of surface coal mining and reclamation activities or for entry to underground mining activities.

"Highwall Remnant" means that portion of highwall that remains after backfilling and grading of a REMINING permit area.

"Historic Lands" means, for the purposes of R645-103-300, areas containing historic, cultural, and scientific resources. Examples of historic lands include archeological sites, properties listed on or eligible for listing on a Utah or National Register of Historic Places, National Historic Landmarks, properties having religious or cultural significance to native Americans or religious groups, and properties for which historic designation is pending.

"Historically Used for Cropland" means (a) lands that have been used for cropland for any five years or more out of the ten years immediately preceding the acquisition, including purchase, lease, or option, of the land for the purpose of conducting or allowing through resale, lease, or option the conducting of coal mining and reclamation operations; (b) lands that the Division determines, on the basis of additional cropland history of the surrounding lands and the lands under consideration, that the permit area is clearly cropland but falls outside the specific five-years-in-ten criterion, in which case the regulations for prime farmland may be applied to include more years of cropland history only to increase the prime farmland acreage to be preserved; or (c) lands that would likely have been used as cropland for any five out of the last ten years, immediately preceding such acquisition but for the same fact of ownership or control of the land unrelated to the productivity of the land.

"Hydrologic Balance" means the relationship between the quality and quantity of water inflow to, water outflow from, and water storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake, or reservoir. It encompasses the dynamic relationships among precipitation, runoff, evaporation, and changes in ground and surface water storage.

"Hydrologic Regime" means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface and returns to the atmosphere as vapor by means of evaporation and transpiration.

"Imminent Danger to the Health and Safety of the Public" means the existence of any condition or practice, or any violation of a permit or other requirements of the Act in a coal mining and reclamation operation, which could reasonably be expected to cause substantial physical harm to persons outside the permit area before the condition, practice, or violation can be abated. A reasonable expectation of death or serious injury before abatement exists if a rational person, subjected to the same condition or practice giving rise to the peril, would avoid exposure to the danger during the time necessary for abatement.

"Impounding Structure" means a dam, embankment, or other structure used to impound water, slurry, or other liquid or semiliquid material.

"Impoundments" means all water, sediment, slurry, or other

liquid or semiliquid holding structures, either naturally formed or artificially built.

"Indian Lands" means all lands, including mineral interests, within the exterior boundaries of any federal Indian reservation, notwithstanding the issuance of any patent, and including rights-of-way, and all lands including mineral interests held in trust for or supervised by an Indian tribe.

"Indirect Financial Interest" means the same financial relationships as for direct ownership, but where the employee reaps the benefits of such interests, including interests held by his or her spouse, minor child(ren) and other relatives, including in-laws, residing in the employee's home. The employee will not be deemed to have an indirect financial interest if there is no relationship between the employee's functions or duties and the coal mining and reclamation operations in which the spouse, minor child(ren), or other resident relatives hold a financial interest.

"In-Situ Processes" means activities conducted on the surface or underground in connection with in-place distillation, retorting, leaching, or other chemical or physical processing of coal. The term includes, but is not limited to, in-situ gasification, in-situ leaching, slurry mining, solution mining, borehole mining, and fluid-recovery mining.

"Intermittent Stream" means a stream, or reach of a stream, that is below the local water table for at least some part of the year and obtains its flow from both surface runoff and groundwater discharge.

"Irreparable Damage to the Environment" means any damage to the environment in violation of the Act, the State Program, or the R645 Rules that cannot be corrected by actions of the applicant.

"Knowingly" means for the purposes of R645-402, that an individual knew or had reason to know in authorizing, ordering, or carrying out an act or omission on the part of a corporate permittee that such act or omission constituted a violation, failure, or refusal.

"Land Use" means specific uses or management-related activities, rather than the vegetation or cover of the land. Land uses may be identified in combination when joint or seasonal uses occur and may include land used for support facilities that are an integral part of the use. Changes of land use from one of the following categories to another will be considered as a change to an alternative land use which is subject to approval by the Division.

CROPLAND - Land used for the production of adapted crops for harvest, alone or in rotation with grasses and legumes, that include row crops, small grain crops, hay crops, nursery crops, orchard crops, and other similar crops.

DEVELOPED WATER RESOURCES - Land used for storing water for beneficial uses such as stock ponds, irrigation, fire protection, flood control, and water supply.

FISH AND WILDLIFE HABITAT - Land dedicated wholly or partially to the production, protection, or management of species of fish or wildlife.

FORESTRY - Land used or managed for the long-term production of wood, wood fiber, or wood-derived products.

GRAZING LAND - Land used for grasslands and forest lands where the indigenous vegetation is actively managed for grazing, browsing, or occasional hay production.

INDUSTRIAL/COMMERCIAL - Land used for (a) extraction or transformation of materials for fabrication of products, wholesaling of products, or long-term storage of products; this includes all heavy and light manufacturing facilities, or (b) retail or trade of goods or services, including hotels, motels, stores, restaurants, and other commercial establishments.

PASTURE LAND OR LAND OCCASIONALLY CUT FOR HAY - Land used primarily for the long-term production of adapted, domesticated forage plants to be grazed by livestock or occasionally cut and cured for livestock feed.

RECREATION - Land used for public or private leisure-time activities, including developed recreation facilities such as parks, camps, and amusement areas, as well as areas for less intensive uses such as hiking, canoeing, and other undeveloped recreational uses.

RESIDENTIAL - Land used for single and multiple-family housing, mobile home parks, or other residential lodgings.

UNDEVELOPED LAND OR NO CURRENT USE OR LAND MANAGEMENT - Land that is undeveloped or if previously developed, land that has been allowed to return naturally to an undeveloped state or has been allowed to return to forest through natural succession.

"Liabilities" means obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

"Material Damage" for the purposes of R645-301-525, means:

(a) Any functional impairment of surface lands, features, structures or facilities;

(b) Any physical change that has a significant adverse impact on the affected land's capability to support any current or reasonably foreseeable uses or causes significant loss in production or income; or

(c) Any significant change in the condition, appearance or utility of any structure or facility from its pre-subsidence condition.

"Materially Damage the Quantity or Quality of Water" means, with respect to ALLUVIAL VALLEY FLOORS, to degrade or reduce, by coal mining and reclamation operations, the water quantity or quality supplied to the alluvial valley floor to the extent that resulting changes would significantly decrease the capability of the alluvial valley floor to support agricultural activities.

"Mining" means, for the purposes of R645-400-351, (a) extracting coal from the earth or coal waste piles and transporting it within or from the permit area; and (b) the processing, cleaning, concentrating, preparing or loading of coal where such operations occur at a place other than a mine site.

"Mining area" means, for the purpose of R645-106, an individual excavation site or pit from which coal, other minerals and overburden are removed.

"Moist Bulk Density" means the weight of soil (oven dry)per unit volume. Volume is measured when the soil is at field moisture capacity (1/3 bar moisture tension). Weight is

determined after drying the soil at 105 degrees Celsius.

"NRCS" means Natural Resources Conservation Service, U.S. Department of Agriculture.

"MSHA" means the Mine Safety and Health Administration, U.S. Department of Labor.

"Mulch" means vegetation residues or other suitable materials that aid in soil stabilization and soil moisture conservation, thus providing microclimatic conditions suitable for germination and growth.

"Natural Hazard Lands" means, for the purposes of R645-103-300, geographic areas in which natural conditions exist which pose or, as a result of coal mining and reclamation operations, may pose a threat to the health, safety, or welfare of people, property or the environment, including areas subject to landslides, cave-ins, large or encroaching sand dunes, severe wind or soil erosion, frequent flooding, avalanches, and areas of unstable geology.

"Net Worth" means total assets minus total liabilities and is equivalent to owners' equity.

"Non-commercial Building" means any building, other than an occupied residential dwelling, that, at the time the subsidence occurs, is used on a regular or temporary basis as a public building or community or institutional building as those terms are defined at R645-100-200. Any building used only for commercial agricultural, industrial, retail or other commercial enterprises is excluded.

"Noxious Plants" means species that have been included on the official Utah list of noxious plants.

"Occupied Dwelling" means any building that is currently being used on a regular or temporary basis for human habitation.

"Occupied Residential Dwelling and Structures Related Thereto" means, for purposes of R645-301, any building or other structure that, at the time the subsidence occurs, is used either temporarily, occasionally, seasonally, or permanently for human habitation. This term also includes any building, structure or facility installed on, above or below, or a combination thereof, the land surface if that building, structure or facility is adjunct to or used in connection with an occupied residential dwelling. Examples of such structures include, but are not limited to, garages; storage sheds and barns; greenhouses and related buildings; utilities and cables; fences and other enclosures; retaining walls; paved or improved patios, walks and driveways; septic sewage treatment facilities; and lot drainage and lawn and garden irrigation systems. Any structure used only for commercial agricultural, industrial, retail or other commercial purposes is excluded.

"Office" means Office of Surface Mining Reclamation and Enforcement, U.S. Department of the Interior.

"Operator" means any person engaged in coal mining who removes, or intends to remove, more than 250 tons of coal from the earth or from coal refuse piles by mining within 12 consecutive calendar months in any one location.

"Other minerals" means, for the purpose of R645-106, any commercially valuable substance mined for its mineral value,

excluding coal, topsoil, waste and fill material.

"Other Treatment Facilities" means, for the purposes of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763, any chemical treatments, such as flocculation or neutralization, or mechanical structures, such as clarifiers or precipitators, that have a point source discharge and that are utilized to prevent additional contribution of dissolved or suspended solids to stream flow or runoff outside the permit area or to comply with all applicable State and Federal water quality laws and regulations.

"Outslope" means the face of the spoil or embankment sloping downward from the highest elevation to the toe.

"Overburden" means material of any nature, consolidated or unconsolidated, that overlies a coal deposit, excluding topsoil.

"Owned or controlled" and "owns or controls" means any one or a combination of the relationships specified in paragraphs (a) and (b) of this definition:

(a)(1) Being a permittee of a coal mining and reclamation operation;

(2) Based on the instrument of ownership or voting securities, owning of record in excess of 50 percent of an entity; or

(3) Having any other relationship which gives one person authority directly or indirectly to determine the manner in which an applicant, an operator, or other entity conducts coal mining and reclamation operations.

(b) The following relationships are presumed to constitute ownership or control unless a person can demonstrate that the person subject to the presumption does not in fact have the authority directly or indirectly to determine the manner in which the relevant coal mining and reclamation operation is conducted:

(1) Being an officer or director of an entity;

(2) Being the operator of a coal mining and reclamation operation;

(3) Having the ability to commit the financial or real property assets or working resources of an entity;

(4) Being a general partner in a partnership;

(5) Based on the instruments of ownership or the voting securities of a corporate entity, owning of record 10 through 50 percent of the entity; or

(6) Owning or controlling coal to be mined by another person under a lease, sublease, or other contract and having the right to receive such coal after mining or having authority to determine the manner in which that person or another person conducts coal mining and reclamation operation.

"Parent Corporation" means corporation which owns or controls the applicant.

"Perennial Stream" means a stream or part of a stream that flows continuously during all of the calendar year as a result of groundwater discharge or surface runoff. The term does not include intermittent stream or ephemeral stream.

"Performance Bond" means a surety bond, collateral bond, or self-bond, or a combination thereof, by which a permittee assures faithful performance of all the requirements of the Act, the R645

Rules, the State Program, and the requirements of the permit and reclamation plan.

"Performing Any Function or Duty Under This Act" means those decisions or actions, which if performed or not performed by a board member or employee, affect the State Program under the Act.

"Permanent Diversion" means a diversion remaining after coal mining and reclamation operations are completed which has been approved for retention by the Division and other appropriate state and federal agencies.

"Permanent Impoundment" means an impoundment which is approved by the Division and, if required, by other state and federal agencies for retention as part of the postmining land use.

"Permit" means a permit to conduct coal mining and reclamation operations issued by the Division pursuant to the State Program. For purposes of the federal lands program, permit means a permit issued by the Division pursuant to the cooperative agreement with the Secretary.

"Permit Area" means the area of land, indicated on the approved map submitted by the operator with his or her application, required to be covered by the operator's performance bond under R645-301-800, and which will include the area of land upon which the operator proposes to conduct coal mining and reclamation operations under the permit, including all disturbed areas, provided that areas adequately bonded under another valid permit may be excluded from the permit area.

"Permit Change" means any coal mining and reclamation operations not previously approved by the Division in the Permit or in any previously-approved permit change under R645-303-220.

"Permittee" means a person holding, or required by the Act or the R645 Rules to hold, a permit to conduct coal mining and reclamation operations issued by the Division pursuant to the State Program or, under the cooperative agreement pursuant to Section 523 of P.L. 95-87, by the Director of the Office and the Division.

"Person" means an individual, Indian tribe when conducting coal mining and reclamation operations on non-Indian lands, partnership, association, society, joint venture, joint-stock company, firm, company, corporation, cooperative or other business organization, and any agency, unit, or instrumentality of federal, state, or local government including any publicly owned utility or publicly owned corporation of federal, state, or local governments.

"Person Having an Interest Which Is or May Be Adversely Affected or Person With a Valid Legal Interest" means any person (a) who uses any resource of economic, recreational, aesthetic, or environmental value that may be adversely affected by coal exploration or coal mining and reclamation operations or any related action of the Division, or the Board, or (b) whose property is or may be adversely affected by coal exploration or coal mining and reclamation operations or any related action of the Division or the Board.

"Precipitation Event" means a quantity of water resulting from drizzle, rain, snow, sleet, or hail in a limited period of time. It may be expressed in terms of recurrence interval. As

used in the R645 Rules, precipitation event also includes that quantity of water emanating from snow cover as snowmelt in a limited period of time.

"Previously Mined Area" means land affected by coal mining and reclamation operations prior to August 3, 1977, that has not been reclaimed to the standards of Ut. Admin. R645 or 30 CFR chapter VII.

"Prime Farmland" means those lands which are defined by the Secretary of Agriculture in 7 CFR 657 (Federal Register Vol. 4 No. 21) and which have historically been used for cropland as that phrase is defined herein.

"Principal Shareholder" means any person who is the record or beneficial owner of ten percent or more of any class of voting stock.

"Prohibited Financial Interest" means any direct or indirect financial interest in any coal mining and reclamation operation.

"Property to be Mined" means both the surface estates and mineral estates within the permit area and the area covered by underground workings.

"Public Building" means any structure that is owned or leased and principally used by a government agency for public business or meetings.

"Public Office" means a facility under the direction and control of a governmental entity which is open to public access on a regular basis during reasonable business hours.

"Public Park" means an area or portion of an area dedicated or designated by any federal, state, or local agency primarily for public recreational use, whether or not such use is limited to certain times or days, including any land leased, reserved, or held open to the public because of that use.

"Public Road", for the purpose of part R645-103-200, R645-301-521.123, and R645-301-521.133 means a road (a) which has been designated as a public road pursuant to the laws of the jurisdiction in which it is located; (b) which is maintained with public funds in a manner similar to other public roads of the same classification within the jurisdiction; (c) for which there is substantial (more than incidental) public use; and (d) which meets road construction standards for other public roads of the same classification in the local jurisdiction.

"Publicly Owned Park" means a public park that is owned by a federal, state, or local governmental entity.

"Qualified Laboratory" means, for the purposes of R645-302-290, a designated public agency, private firm, institution, or analytical laboratory which can prepare the required determination of probable hydrologic consequences, statement of results of test borings or core samplings under SOAP, or other services as specified at R645-302-299 and which meet the standards of R645-302-295.100.

"Rangeland" means land on which the natural potential (climax) plant cover is principally native grasses, forbs, and shrubs valuable for forage. This land includes natural grasslands and savannahs, such as prairies, and juniper savannahs, such as brushlands. Except for brush control, management is primarily achieved by regulating the intensity of grazing and season of use.

"Reasonably Available Spoil" means spoil and suitable coal mine waste material generated by the remining activity or other spoil or suitable coal mine waste material located in the permit area that is accessible and available for use, and that when rehandled will not cause a hazard to public safety or significant damage to the environment.

"Recharge Capacity" means the ability of the soils and underlying materials to allow precipitation and runoff to infiltrate and reach the zone of saturation.

"Reclamation" means those actions taken to restore mined land as required by the R645 Rules to a postmining land use approved by the Division.

"Recurrence Interval" means the interval of time in which a precipitation event is expected to occur once, on the average. For example, the 10-year 24-hour precipitation event would be that 24-hour precipitation event expected to occur on the average once in ten years.

"Reference Area" means a land unit maintained under appropriate management for the purpose of measuring vegetation ground cover, productivity, and plant species diversity that are produced naturally or by crop production methods approved by the Division. Reference areas must be representative of geology, soil, slope, and vegetation in the permit area.

"Refuse Pile" means a surface deposit of coal mine waste that does not impound water, slurry, or other liquid or semiliquid material.

"Remining" means conducting coal mining and reclamation operations which affect previously mined areas.

"Renewable Resource Lands" means aquifers and areas for the recharge of aquifers and other underground waters, areas for agricultural or silvicultural production of food and fiber, and grazing lands. For the purposes of R645-103, RENEWABLE RESOURCE LANDS means geographic areas which contribute significantly to the long-range productivity of water supply or of food or fiber products, such lands to include aquifers and aquifer recharge areas.

"Renewal of a Permit" means, for the purposes of R645-302-300, a decision by the Division to extend the time by which the permittee may complete mining within the boundaries of the original permit.

"Replacement of Water Supply" means, with respect to State-appropriated water supplies contaminated, diminished, or interrupted by coal mining and reclamation operations, provision of water supply on both a temporary and permanent basis equivalent to premining quantity and quality. Replacement includes provision of an equivalent water delivery system and payment of operation and maintenance costs in excess of customary and reasonable delivery costs for premining water supplies.

(a) Upon agreement by the permittee and the water supply owner, the obligation to pay such operation and maintenance costs may be satisfied by a one-time payment in an amount which covers the present worth of the increased annual operation and maintenance costs for a period agreed to by the permittee and the water supply owner.

(b) If the affected water supply was not needed for the land use in existence at the time of loss, contamination, or diminution, and if the supply is not needed to achieve the postmining land use, replacement requirements may be satisfied by demonstrating that a suitable alternative water source is available and could feasibly be developed. If the latter approach is selected, written concurrence must be obtained from the water supply owner.

"Road" means a surface right-of-way for purposes of travel by land vehicles used in coal mining and reclamation operations or coal exploration. A road consists of the entire area within the right-of-way, including the roadbed, shoulders, parking and side areas, approaches, structures, ditches, and surface. The term includes access and haul roads constructed, used, reconstructed, improved, or maintained for use in coal mining and reclamation operations or coal exploration, including use by coal hauling vehicles to and from transfer, processing, or storage areas. The term does not include ramps and routes of travel within the immediate mining area or within spoil or coal mine waste disposal areas.

"Safety Factor" means the ratio of the available shear strength to the developed shear stress, or the ratio of the sum of the resisting forces to the sum of the loading or driving forces, as determined by accepted engineering practices.

"Secretary" means the Secretary of the Department of Interior or his or her representative.

"Sedimentation Pond" means an impoundment used to remove solids from water in order to meet water quality standards or effluent limitations before the water leaves the permit area.

"Self Bond" means an indemnity agreement in a sum certain executed by the applicant or by the applicant and any corporate guarantor, and made payable to the Division with or without separate surety.

"Significant Forest Cover" means an existing plant community consisting predominantly of trees and other woody vegetation. The Secretary of Agriculture will decide on a case-by-case basis whether the forest cover is significant within those national forests in Utah.

"Significant, Imminent Environmental Harm to Land, Air, or Water Resources" means (a) the environmental harm has an adverse impact on land, air, or water resources which resources include, but are not limited to, plant and animal life; (b) an environmental harm is imminent, if a condition, practice, or violation exists which (i) is causing such harm, or (ii) may reasonably be expected to cause such harm at any time before the end of the reasonable abatement time that would be set under 40-10-22 of the Act, and (c) an environmental harm is significant if that harm is appreciable and not immediately repairable.

"Significant Recreational, Timber, Economic, or Other Values Incompatible With Coal Mining and Reclamation Operations" means those values to be evaluated for their significance which could be damaged by, and are not capable of existing together with, coal mining and reclamation operations because of the undesirable effects mining would have on those values, either on the area

included in the permit application or on other affected areas. Those values to be evaluated for their importance include (a) recreation, including hiking, boating, camping, skiing, or other related outdoor activities, (b) timber management and silviculture, (c) agriculture, aquaculture, or production of other natural, processed, or manufactured products which enter commerce, and (d) scenic, historic, archaeologic, aesthetic, fish, wildlife, plants, or cultural interests.

"Siltation Structure" means, for the purposes of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763, a sedimentation pond, a series of sedimentation ponds or other treatment facilities.

"Slope" means average inclination of a surface, measured from the horizontal, generally expressed as the ratio of a unit of vertical distance to a given number of units of horizontal distance (e.g., 1v:5h). It may also be expressed as a percent or in degrees.

"SOAP" means Small Operator Assistance Program.

"Soil Horizons" means contrasting layers of soil parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The four major soil horizons are"

A HORIZON - The uppermost mineral layer, often called the surface soil. It is the part of the soil in which organic matter is most abundant, and leaching of soluble or suspended particles is typically the greatest.

E HORIZON - The layer commonly near the surface below an A horizon and above a B horizon. An E horizon is most commonly differentiated from an overlying A horizon by lighter color and generally has measurably less organic matter than the A horizon. An E horizon is most commonly differentiated from an underlying B horizon in the same sequum by color of higher value or lower chroma, by coarser texture, or by a combination of these properties.

B HORIZON - The layer that typically is immediately beneath the E horizon and often called the subsoil. This middle layer commonly contains more clay, iron, or aluminum than the A, E, or C horizons.

C HORIZON - The deepest layer of soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity.

"Soil Survey" means a field and other investigations resulting in a map showing the geographic distribution of different kinds of soils and an accompanying report that describes, classifies, and interprets such soils for use. Soil surveys must meet the standards of the National Cooperative Soil Survey as incorporated by reference in R645-302-314.100.

"Spoil" means overburden that has been removed during coal mining and reclamation operations.

"Stabilize" means to control movement of soil, spoil piles, or areas of disturbed earth by modifying the geometry of the mass, or by otherwise modifying physical or chemical properties, such as by providing a protective surface coating.

"State Program" means the program established by the state of

Utah and approved by the Secretary of the Department of the Interior pursuant to the Federal Act and the Act to regulate coal mining and reclamation operations on non-Indian and non-federal lands within Utah, according to the Federal Act, the Act and the R645 Rules. Pursuant to the cooperative agreement between the state of Utah and the Office, the State Program applies to federal lands in accordance with the terms of the cooperative agreement.

"Steep Slope" means any slope of more than 20 degrees or such lesser slope as may be designated by the Division after consideration of soil, climate, and other characteristics of a region or Utah.

"Subirrigation" means, with respect to ALLUVIAL VALLEY FLOORS, the supplying of water to plants from underneath or from a semisaturated or saturated subsurface zone where water is available for use by vegetation.

"Substantial Legal and Financial Commitments in a Coal Mining and Reclamation Operation" means, for the purposes of R645-103-300, significant investments that have been made on the basis of a long-term coal contract in power plants, railroads, coal-handling, preparation, extraction or storage facilities, and other capital-intensive activities. An example would be an existing mine not actually producing coal, but in a substantial stage of development prior to production. Costs of acquiring the coal in place or the right to mine it without an existing mine, as described in the above example, alone are not sufficient to constitute substantial legal and financial commitments.

"Substantially Disturb" means, for purposes of COAL EXPLORATION, to significantly impact land or water resources by blasting; by removal of vegetation, topsoil, or overburden; by construction of roads or other access routes; by placement of excavated earth or waste material on the natural land surface or by other such activities; or to remove more than 250 tons of coal.

"Successor in Interest" means any person who succeeds to rights granted under a permit, by transfer, assignment, or sale of those rights.

"Surety Bond" means an indemnity agreement in a sum certain payable to the Division, executed by the permittee as principal and which is supported by the performance guarantee of a corporation licensed to do business as a surety in Utah.

"Surface Operations and Impacts Incident to an Underground Coal Mine" means all operations involved in or related to UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES which are either conducted on the surface of the land, produce changes in the land surface or disturb the surface, air, or water resources of the area including all activities listed in 40-10-3(20) of the Act and the definition of underground mining activities appearing herein.

"SURFACE COAL MINING AND RECLAMATION ACTIVITIES" means those coal mining and reclamation operations incident to the extraction of coal from the earth by removing the materials over a coal seam, before recovering the coal, by auger coal mining, or by recovery of coal from a deposit that is not in its original geologic location.

"Suspended Solids or Nonfilterable Residue, Expressed as

Milligrams Per Liter" means organic or inorganic materials carried or held in suspension in water which are retained by a standard glass fiber filter in the procedure outlined by the Environmental Protection Agency's regulation for waste water and analyses (40 CFR Part 136).

"Tangible Net Worth" means net worth minus intangibles such as goodwill and rights to patents or royalties.

"Temporary Diversion" means a diversion of a stream, or overland flow, which is used during coal exploration or coal mining and reclamation operations and not approved by the Division to remain after reclamation as part of the approved postmining land use.

"Temporary Impoundment" means an impoundment used during coal mining and reclamation operations, but not approved by the Division to remain as part of the approved postmining land use.

"Ton" means 2,000 pounds avoirdupois (.90718 metric ton).

"Topsoil" means the A and E soil horizon layers of the four major soil horizons.

"Toxic-Forming Materials" means earth materials or wastes which, if acted upon by air, water, weathering, or microbiological processes are likely to produce chemical or physical conditions in soils or water that are detrimental to biota or uses of water.

"Toxic Mine Drainage" means water that is discharged from active or abandoned mines or other areas affected by coal exploration or coal mining and reclamation operations which contains a substance that through chemical action or physical effects is likely to kill, injure, or impair biota commonly present in the area that might be exposed to it.

"Transfer, Assignment, or Sale of Permit Rights" means a change in ownership or other effective control over the right to conduct coal mining and reclamation operations under a permit issued by the Division.

"UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES" means coal mining and reclamation operations incident to the extraction of coal by underground methods including a combination of (a) underground extraction of coal or in situ processing, construction use, maintenance, and reclamation of roads, above-ground repair areas, storage areas, processing areas, shipping areas, areas upon which are sited support facilities including hoist and ventilating ducts, areas utilized for the disposal and storage of waste, and areas on which materials incident to underground mining operations are placed; and (b) underground operations such as underground construction, operation, and reclamation of shafts, adits, underground support facilities, in situ processing, and underground mining, hauling, storage, and blasting.

"Underground Development Waste" means waste-rock mixtures of coal, shale, claystone, siltstone, sandstone, limestone, or related materials that are excavated, moved, and disposed of from underground workings in connection with UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES.

"Undeveloped Rangeland" means, for purposes of ALLUVIAL VALLEY FLOORS, lands where the use is not specifically controlled and managed.

"Unwarranted Failure to Comply" means the failure of the

permittee to prevent the occurrence of any violation of the State Program or any permit condition due to indifference, lack of diligence, or lack of reasonable care, or the failure to abate any violation of such permit of the Act due to indifference, lack of diligence, or lack of reasonable care.

"Upland Areas" means, with respect to ALLUVIAL VALLEY FLOORS, those geomorphic features located outside the floodplain and terrace complex such as isolated higher terraces, alluvial fans, pediment surfaces, landslide deposits, and surfaces covered with residuum, mud flows, or debris flows, as well as highland areas underlain by bedrock and covered by residual weathered material or debris deposited by sheetwash, rillwash, or windblown material.

"Valid Existing Rights" means a set of circumstances under which a person may, subject to regulatory authority approval, conduct coal mining and reclamation operations on lands where Subsection 40-10-24(4) of the Act and R645-103-224 would otherwise prohibit such operations. Possession of valid existing rights only confers an exception from the prohibitions of R645-103-224 and Subsection 40-10-24(4) of the Act. A person seeking to exercise valid existing rights must comply with all other pertinent requirements of the Federal Act and the State Program.

(a) Property rights demonstration. Except as provided in paragraph (c) of this definition, a person claiming valid existing rights must demonstrate that a legally binding conveyance, lease, deed, contract, or other document vests that person, or a predecessor in interest, with the right to conduct the type of coal mining and reclamation operations intended. This right must exist at the time that the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act. Applicable Utah statutory or case law will govern interpretation of documents relied upon to establish property rights, unless Federal law provides otherwise. If no applicable Utah law exists, custom and generally accepted usage at the time and place that the documents came into existence will govern their interpretation.

(b) Except as provided in paragraph (c) of this definition, a person claiming valid existing rights also must demonstrate compliance with one of the following standards:

(i) Good faith/all permits standard. All permits and other authorizations required to conduct coal mining and reclamation operations had been obtained, or a good faith effort to obtain all necessary permits and authorizations had been made, before the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act. At a minimum, an application must have been submitted for any permit required under R645-201, R645-301 or R645-302; or

(ii) Needed for and adjacent standard. The land is needed for and immediately adjacent to a coal mining and reclamation operation for which all permits and other authorizations required to conduct coal mining and reclamation operations had been obtained, or a good faith attempt to obtain all permits and authorizations had been made, before the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act. To meet this standard, a person must demonstrate that prohibiting expansion of the operation onto that land would unfairly impact

the viability of the operation as originally planned before the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act. Except for operations in existence before August 3, 1977, or for which a good faith effort to obtain all necessary permits had been made before August 3, 1977, this standard does not apply to lands already under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act when the Division approved the permit for the original operation or when the good faith effort to obtain all necessary permits for the original operation was made. In evaluating whether a person meets this standard, the Division may consider factors such as:

(A) The extent to which coal supply contracts or other legal and business commitments that predate the time that the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act depends upon use of that land for coal mining and reclamation operations;

(B) The extent to which plans used to obtain financing for the operation before the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act rely upon use of that land for coal mining and reclamation operations;

(C) The extent to which investments in the operation before the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act rely upon use of that land for coal mining and reclamation operations;

(D) Whether the land lies within the area identified on the life-of-mine map submitted under R645-301-521.141 before the land came under the protection of R645-103-224.

(c) Roads. A person who claims valid existing rights to use or construct a road across the surface of lands protected by R645-103-224 or Subsection 40-10-24(4) of the Act must demonstrate that one or more of the following circumstances exist if the road is included within the definition of coal mining and reclamation operations:

(i) The road existed when the land upon which it is located came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act, and the person has a legal right to use the road for coal mining and reclamation operations;

(ii) A properly recorded right of way or easement for a road in that location existed when the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act, and, under the document creating the right of way or easement, and under subsequent conveyances, the person has a legal right to use or construct a road across the right of way or easement for coal mining and reclamation operations;

(iii) A valid permit for use or construction of a road in that location for coal mining and reclamation operations existed when the land came under the protection of R645-103-224 or Subsection 40-10-24(4) of the Act; or

(iv) Valid existing rights exist under paragraphs (a) and (b) of this definition.

"Valley Fill" means a fill structure consisting of any material, other than organic material, that is placed in a valley where side slopes of the existing valley, measured at the steepest point, are greater than 20 degrees, or where the average slope of

the profile of the valley from the toe of the fill to the top of the fill is greater than ten degrees.

"Violation, Failure, or Refusal" means for the purposes of R645-402, (1) A violation of a condition of a permit issued under the State Program, or (2) A failure or refusal to comply with any order issued under UCA 40-10-22, or any order incorporated in a final decision issued under UCA 40-10-20(2) or R645-104-500.

"Water Supply", "State-appropriated Water", and "State-appropriated Water Supply" are all synonymous terms and mean, for the purposes of the R645 Rules, state appropriated water rights which are recognized by the Utah Constitution or Utah Code.

"Violation Notice" means any written notification from a governmental entity of a violation of law, whether by letter, memorandum, legal or administrative pleading, or other written communication.

"Water Table" means the upper surface of a zone of saturation where the body of ground water is not confined by an overlying impermeable zone.

"Willfully" means for the purposes of R645-402, that an individual acted (1) either intentionally, voluntarily, or consciously, and (2) with intentional disregard or plain indifference to legal requirements in authorizing, ordering, or carrying out a corporate permittee's action or omission that constituted a violation, failure, or refusal.

"Willful Violation" means an act or omission which violates the State Program or any permit condition, committed by a person who intends the result which actually occurs.

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Authorizing, and Implemented or Interpreted Law: 40-10-1 et seq.

Tab 6

R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-300. Coal Mine Permitting: Administrative Procedures.
R645-300-100. Review, Public Participation, and Approval or Disapproval of Permit Applications and Permit Terms and Conditions.

The rules in R645-300-100 present the procedures to carry out the entitled activities.

110. Introduction.

111. Objectives. The objectives of R645-300-100 are to:

111.100. Provide for broad and effective public participation in the review of applications and the issuance or denial of permits;

111.200. Ensure prompt and effective review of each permit application by the Division; and

111.300. Provide the requirements for the terms and conditions of permits issued and the criteria for approval or denial of a permit.

112. Responsibilities.

112.100. The Division has the responsibility to approve or disapprove permits under the approved State Program.

112.200. The Division and persons applying for permits under the State Program will involve the public throughout the permit process of the State Program.

112.300. The Division will assure implementation of the requirements of R645-300 under the State Program.

112.400. All persons who engage in and carry out any coal mining and reclamation operations will first obtain a permit from the Division. The applicant will provide all information in an administratively complete application for review by the Division in accordance with R645-300 and the State Program.

112.500. Any permittee seeking to renew a permit for coal mining and reclamation operations solely for the purpose of reclamation and not for the further extraction, processing, or handling of the coal resource will follow the procedures set forth in R645-303-232.500.

113. Coordination with requirements under other laws. The Division will provide for the coordination of review and issuance of permits for coal mining and reclamation operations with applicable requirements of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 et seq.); the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq.); The National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.); the Bald Eagle Protection Act, as amended 16 U.S.C. 668a); and where federal and Indian lands covered by that Act are involved, the Archeological and Historic Preservation Act of 1974 (16 U.S.C. 469 et seq.); and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa et seq.).

120. Public Participation in Permit Processing.

121. Filing and Public Notice.

121.100. Upon submission of an administratively complete application, an applicant for a permit, significant revision of a permit under R645-303-220 or renewal of a permit under R645-303-230 will place an advertisement in a local newspaper of general

circulation in the locality of the proposed coal mining and reclamation operation at least once a week for four consecutive weeks. A copy of the advertisement as it will appear in the newspaper will be submitted to the Division. The advertisement will contain, at a minimum, the following:

121.110. The name and business address of the applicant;

121.120. A map or description which clearly shows or describes the precise location and boundaries of the proposed permit area and is sufficient to enable local residents to readily identify the proposed permit area. It may include towns, bodies of water, local landmarks, and any other information which would identify the location. If a map is used, it will indicate the north direction;

121.130. The location where a copy of the application is available for public inspection;

121.140. The name and address of the Division, where written comments, objections, or requests for informal conferences on the application may be submitted under R645-300-122 and R645-300-123;

121.150. If an applicant seeks a permit to mine within 100 feet of the outside right-of-way of a public road or to relocate or close a public road, except where public notice and hearing have previously been provided for this particular part of the road in accordance with R645-103-234; a concise statement describing the public road, the particular part to be relocated or closed, and the approximate timing and duration of the relocation or closing; and

121.160. If the application includes a request for an experimental practice under R645-302-210, a statement indicating that an experimental practice is requested and identifying the regulatory provisions for which a variance is requested.

121.200. The applicant will make an application for a permit, significant revision under R645-303-220, or renewal of a permit under R645-303-230 available for the public to inspect and copy by filing a full copy of the application with the recorder at the courthouse of the county where the coal mining and reclamation operation is proposed to occur, or an accessible public office approved by the Division. This copy of the application need not include confidential information exempt from disclosure under R645-300-124. The application required by R645-300-121 will be filed by the first date of newspaper advertisement of the application. The applicant will file any changes to the application with the public office at the same time the change is submitted to the Division.

121.300. Upon receipt of an administratively complete application for a permit, a significant revision to a permit under R645-303-220, or a renewal of a permit under R645-303-230, the Division will issue written notification indicating the applicant's intention to conduct coal mining and reclamation operations within the described tract of land, the application number or other identifier, the location where the copy of the application may be inspected, and the location where comments on the application may be submitted. The notification will be sent to:

121.310. Local governmental agencies with jurisdiction over

or an interest in the area of the proposed coal mining and reclamation operation, including but not limited to planning agencies, sewage and water treatment authorities, water companies; and

121.320. All federal or state governmental agencies with authority to issue permits and licenses applicable to the proposed coal mining and reclamation operation and which are part of the permit coordinating process developed in accordance with the State Program, Section 503(a)(6) or Section 504(h) of P.L. 95-87, or 30 CFR 733.12; or those agencies with an interest in the proposed coal mining and reclamation operation, including the U.S. Department of Agriculture Soil Conservation Service district office, the local U.S. Army Corps of Engineers district engineer, the National Park Service, state and federal fish and wildlife agencies, and Utah State Historic Preservation Officer.

122. Comments and Objections on Permit Application.

122.100. Within 30 days of the last newspaper publication, written comments or objections to an application for a permit, significant revision to a permit under R645-303-220, or renewal of a permit under R645-303-230 may be submitted to the Division by public entities notified under R645-300-121.300 with respect to the effects of the proposed coal mining and reclamation operation on the environment within their areas of responsibility.

122.200. Written objections to an application for a permit, significant revision to a permit under R645-303-220, or renewal of a permit under R645-303-230 may be submitted to the Division by any person having an interest which is or may be adversely affected by the decision on the application, or by an officer or head of any federal, state, or local government agency or authority, within 30 days after the last publication of the newspaper notice required by R645-300-121.

122.300. The Division will upon receipt of such written comments or objections:

122.310. Transmit a copy of the comments or objections to the applicants; and

122.320. File a copy for public inspection at the Division.

123. Informal Conferences.

123.100. Any person having an interest which is or may be adversely affected by the decision on the application, or an office or a head of a federal, state, or local government agency, may request in writing that the Division hold an informal conference on the application for a permit, significant revision to a permit under R645-303-220, or renewal of a permit under R645-303-230. The request will:

123.110. Briefly summarize the issues to be raised by the requestor at the conference;

123.120. State whether the requestor desires to have the conference conducted in the locality of the proposed coal mining and reclamation operation; and

123.130. Be filed with the Division no later than 30 days after the last publication of the newspaper advertisement required under R645-300-121.

123.200. Except as provided in R645-300-123.300, if an informal conference is requested in accordance with R645-300-

123.100, the Division will hold an informal conference within 30 days following the receipt of the request. The informal conference will be conducted as follows:

123.210. If requested under R645-300-123.120, it will be held in the locality of the proposed coal mining and reclamation operation.

123.220. The date, time, and location of the informal conference will be sent to the applicant and other parties to the conference and advertised by the Division in a newspaper of general circulation in the locality of the proposed coal mining and reclamation operation at least two weeks before the scheduled conference.

123.230. If requested in writing by a conference requestor at a reasonable time before the conference, the Division may arrange with the applicant to grant parties to the conference access to the proposed permit area and, to the extent that the applicant has the right to grant access to it, to the adjacent area prior to the established date of the conference for the purpose of gathering information relevant to the conference.

123.240. The requirements of the Procedural Rules of the Board of Oil, Gas and Mining (R641 Rules) will apply to the conduct of the informal conference. The conference will be conducted by a representative of the Division, who may accept oral or written statements and any other relevant information from any party to the conference. An electronic or stenographic record will be made of the conference, unless waived by all the parties. The record will be maintained and will be accessible to the parties of the conference until final release of the applicant's performance bond or other equivalent guarantee pursuant to R645-301-800.

123.300. If all parties requesting the informal conference withdrew their request before the conference is held, the informal conference may be canceled.

123.400. An informal conference held in accordance with R645-300-123 may be used by the Division as the public hearing required under R645-103-234 on proposed relocation or closing of public roads.

124. Public Availability of Permit Applications.

124.100. General Availability. Except as provided in R645-300-124.200 and R645-300-124.300, all applications for permits; permit changes; permit renewals; and transfers, assignments or sales of permit rights on file with the Division will be made available, at reasonable times, for public inspection and copying.

124.200. Limited Availability. Except as provided in R645-300-124.310, information pertaining to coal seams, test borings, core samplings, or soil samples in an application will be made available to any person with an interest which is or may be adversely affected. Information subject to R645-300-124 will be made available to the public when such information is required to be on public file pursuant to Utah law.

124.300. Confidentiality. The Division will provide procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure, to ensure confidentiality of qualified confidential information, which will

be clearly identified by the applicant and submitted separately from the remainder of the application. Confidential information is limited to:

124.310. Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment.

124.320. Information required under section 40-10-10 of the Act that is authorized by that section to be held confidential and is not on public file pursuant to Utah law and that the applicant has requested in writing to be held confidential; and

124.330. Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (P. L. 96-95, 93 Stat. 721, 16 U.S.C. 470).

130. Review of Permit Application.

131. General.

131.100. The Division will review the application for a permit, permit change, or permit renewal; written comments and objections submitted; and records of any informal conference or hearing held on the application and issue a written decision, within a reasonable time set by the Division, either granting, requiring modification of, or denying the application. If an informal conference is held under R645-300-123 the decision will be made within 60 days of the close of the conference, unless a later time is necessary to provide an opportunity for a hearing under R645-300-210.

131.110. Application review will not exceed the following time periods:

131.111. Permit change applications.

131.111.1. Significant revision - 120 days.

131.111.2. Amendments - 60 days.

131.112. Permit renewal - 120 days.

131.113. New underground mine applications - One year.

131.114. New surface mine applications - One year.

131.120. Time will be counted as cumulative days of Division review and will not include operator response time or time delays attributed to informal or formal conferences or Board hearings.

131.200. The applicant for a permit or permit change will have the burden of establishing that their application is in compliance with all the requirements of the State Program.

131.300. If, after review of the application for a permit, permit change, or permit renewal, additional information is required, the Division will issue a written finding providing justification as to why the additional information is necessary to satisfy the requirements of the R645 Rules and issue a written decision requiring the submission of the information.

132. Review of Compliance.

132.100. The Division will review available information on state and federal failure-to-abate cessation orders, unabated federal and state imminent harm cessation orders, delinquent civil penalties issued under section 518 of the federal Act, SMCRA-derived laws of other states, and section 40-10-20 of the Act, bond forfeitures where violations on which the forfeitures are

based have not been corrected, delinquent abandoned mine reclamation fees, and unabated violations of the Act, derivative laws of other states and federal air and water protection laws, rules and regulations incurred at any coal mining and reclamation operations connected with the applicant. The Division will then make a finding that neither the applicant, nor any person who owns or controls the applicant, nor any person owned or controlled by the applicant is currently in violation of any law, rule, or regulation referred to in R645-300-132. If such a finding cannot be made, the Division will require the applicant, before issuance of the permit, to either:

132.110. Submit to the Division proof that the current violation has been or is in the process of being corrected to the satisfaction of the agency that has jurisdiction over the violation; or

132.120. Establish for the Division that the applicant or any person owned or controlled by the applicant or any person who owns or controls the applicant has filed and is presently pursuing, in good faith, a direct administrative or judicial appeal to contest the validity of the current violation. If the initial judicial review authority under R645-300-220 either denies a stay applied for in the appeal or affirms the violation, then the applicant will within 30 days submit the proof required under R645-300-132.110.

132.200. Any permit that is issued on the basis of proof submitted under R645-300-132.110 or pending the outcome of an appeal described in R645-300-132.120 will be issued conditionally.

132.300. If the Division makes a finding that the applicant, or anyone who owns or controls the applicant, or the operator specified in the application, controls or has controlled coal mining and reclamation operations with a demonstrated pattern of willful violations of the Act of such nature and duration and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the Act, the application will not be granted. Before such a finding becomes final, the applicant or operator will be afforded an opportunity for an adjudicatory hearing on the determination as provided for in R645-300-210.

133. Written Findings for Permit Application Approval. No permit application or application for a significant revision of a permit will be approved unless the application affirmatively demonstrates and the Division finds, in writing, on the basis of information set forth in the application or from information otherwise available that is documented in the approval, the following:

133.100. The application is complete and accurate and the applicant has complied with all the requirements of the Federal Act and the State Program;

133.200. The proposed permit area is:

133.210. Not within an area under study or administrative proceedings under a petition, filed pursuant to R645-103-400 or 30 CFR 769, to have an area designated as unsuitable for coal mining and reclamation operations, unless the applicant demonstrates that before January 4, 1977, substantial legal and financial

commitments were made in relation to the operation covered by the permit application; or

133.220. Not within an area designated as unsuitable for coal mining and reclamation operations pursuant to R645-103-300 and R645-103-400 or 30 CFR 769 or within an area subject to the prohibitions of R645-103-224;

133.300. For coal mining and reclamation operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Division the documentation required under R645-301-114.200;

133.400. The Division has made an assessment of the probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area;

133.500. The operation would not affect the continued existence of endangered or threatened species or result in destruction or adverse modification of their critical habitats, as determined under the Endangered Species Act of 1973 (16 U.S.C. 1531 et.seq.);

133.600. The Division has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing on the National Register of Historic Places. This finding may be supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Division has determined that no additional protection measures are necessary; and

133.700. The applicant has:

133.710. Demonstrated that reclamation as required by the Federal Act and the State Program can be accomplished under the reclamation plan contained in the permit application.

133.720. Demonstrated that any existing structure will comply with the applicable performance standards of R645-301 and R645-302.

133.730. Paid all reclamation fees from previous and existing coal mining and reclamation operations as required by 30 CFR Part 870.

133.740. Satisfied the applicable requirements of R645-302.

133.750. If applicable, satisfied the requirements for approval of a long-term, intensive agricultural postmining land use, in accordance with the requirements of R645-301-353.400.

133.800. For a proposed remining operation where the applicant intends to reclaim in accordance with the requirements of R645-301-553.500, the site of the operation is a previously mined area as defined in R645-100-200.

133.900. For permits to be issued for proposed remining operations as defined in R645-100-200 and reclaimed in accordance with R645-301-553, the permit application must contain the following information:

133.910. Lands eligible for remining;

133.920. An identification of the potential environmental and safety problems related to prior mining activity which could

reasonably be anticipated to occur at the site; and

133.930. Mitigation plans to sufficiently address these potential environmental and safety problems so that reclamation as required by the applicable requirements of the State Program can be accomplished.

133.1000. The applicant is eligible to receive a permit, based on the reviews under R645-300-100 through R645-300-132.300.

134. Performance Bond Submittal. If the Division decides to approve the application, it will require that the applicant file the performance bond or provide other equivalent guarantee before the permit is issued, in accordance with the provisions of R645-301-800.

140. Permit Conditions. Each permit issued by the Division will be subject to the following conditions:

141. The permittee will conduct coal mining and reclamation operations only on those lands that are specifically designated as the permit area on the maps submitted with the application and authorized for the term of the permit and that are subject to the performance bond or other equivalent guarantee in effect pursuant to R645-301-800.

142. The permittee will conduct all coal mining and reclamation operations only as described in the approved application, except to the extent that the Division otherwise directs in the permit.

143. The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.

144. Without advance notice, delay, or a search warrant, upon presentation of appropriate credentials, the permittee will allow the authorized representatives of the Division to:

144.100. Have the right of entry provided for in R645-400-110 and R645-400-220.

144.200. Be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and R645-400-200 when the inspection is in response to an alleged violation reported to the Division by the private person.

145. The permittee will take all possible steps to minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of the permit, including, but not limited to:

145.100. Any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance;

145.200. Immediate implementation of measures necessary to comply; and

145.300. Warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

146. As applicable, the permittee will comply with R645-301 and R645-302 for compliance, modification, or abandonment of existing structures.

147. The operator will pay all reclamation fees required by 30 CFR Part 870 for coal produced under the permit, for sale, transfer or use.

148. Within 30 days after a cessation order is issued under R645-400-310, except where a stay of the cessation order is granted and remains in effect, the permittee will either submit the following information current to when the order was issued or inform the Division in writing that there has been no change since the immediately preceding submittal of such information:

148.100. Any new information needed to correct or update the information previously submitted to the Division by the permittee under R645-301-112.300.

148.200. If not previously submitted, the information required from a permit applicant by R645-301-112.300.

150. Permit Issuance and Right of Renewal.

151. Decision. If the application is approved, the permit will be issued upon submittal of a performance bond in accordance with R645-301-800. If the application is disapproved, specific reasons therefore will be set forth in the notification required by R645-300-152.

152. Notification. The Division will issue written notification of the decision to the following persons and entities:

152.100. The applicant, each person who files comments or objections to the permit application, and each party to an informal conference;

152.200. The local governmental officials in the local political subdivision in which the land to be affected is located within 10 days after the issuance of a permit, including a description of the location of the land; and

152.300. The Office.

153. Permit Term. Each permit will be issued for a fixed term of five years or less, unless the requirements of R645-301-116 are met.

154. Right of Renewal. Permit application approval will apply to those lands that are specifically designated as the permit area on the maps submitted with the application and for which the application is complete and accurate. Any valid permit issued in accordance with R645-300-151 will carry with it the right of successive renewal, within the approved boundaries of the existing permit, upon expiration of the term of the permit, in accordance with R645-303-230.

155. Initiation of Operations.

155.100. A permit will terminate if the permittee has not begun the coal mining and reclamation operation covered by the permit within three years of the issuance of the permit.

155.200. The Division may grant a reasonable extension of time for commencement of these operations, upon receipt of a written statement showing that such an extension of time is necessary, if:

155.210. Litigation precludes the commencement or threatens substantial economic loss to the permittee; or

155.220. There are conditions beyond the control and without the fault or negligence of the permittee.

155.300. With respect to coal to be mined for use in a synthetic fuel facility or specified major electric generating facility, the permittee will be deemed to have commenced coal

mining and reclamation operations at the time that the construction of the synthetic fuel or generating facility is initiated.

155.400. Extensions of time granted by the Division under R645-300-155 will be specifically set forth in the permit, and notice of the extension will be made public by the Division.

160. Improvidently Issued Permits: Review Procedures.

161. Permit review. When the Division has reason to believe that it improvidently issued a coal mining and reclamation permit it will review the circumstances under which the permit was issued, using the criteria in R645-300-162. Where the Division finds that the permit was improvidently issued, it shall comply with R645-300-163.

162. Review criteria. The Division will find that a coal mining and reclamation permit was improvidently issued if:

162.100. Under the violations review criteria of the regulatory program at the time the permit was issued;

162.110. The Division should not have issued the permit because of an unabated violation or a delinquent penalty or fee; or

162.120. The permit was issued on the presumption that a notice of violation was in the process of being corrected to the satisfaction of the agency with jurisdiction over the violation, but a cessation order subsequently was issued; and

162.200. The violation, penalty or fee;

162.210. Remains unabated or delinquent; and

162.220. Is not the subject of a good faith appeal, or of an abatement plan or payment schedule with which the permittee or other person responsible is complying to the satisfaction of the responsible agency; and

162.300. Where the permittee was linked to the violation, penalty or fee through ownership or control, under the violations review criteria of the regulatory program at the time the permit was issued an ownership or control link between the permittee and the person responsible for the violation, penalty or fee still exists, or where the link was severed the permittee continues to be responsible for the violation, penalty or fee.

163. Remedial Measures.

When the Division, under R645-300-162 finds that because of an unabated violation or a delinquent penalty or fee a permit was improvidently issued it will use one or more of the following remedial measures:

163.100. Implement, with the cooperation of the permittee or other person responsible, and of the responsible agency, a plan for abatement of the violation or a schedule for payment of the penalty or fee;

163.200. Impose on the permit a condition requiring that in a reasonable period of time the permittee or other person responsible abate the violation or pay the penalty or fee;

163.300. Suspend the permit until the violation is abated or the penalty or fee is paid; or

163.400. Rescind the permit under R645-300-164.

164. Improvidently Issued Permits: Rescission procedures. When the Division under R645-300-163 elects to rescind an

improvidently issued permit it will serve on the permittee a notice of proposed suspension and rescission which includes the reasons for the finding of the regulatory authority under R645-300-162 and states that:

164.100. Automatic suspension and rescissions. After a specified period of time not to exceed 90 days the permit automatically will become suspended, and not to exceed 90 days thereafter rescinded, unless within those periods the permittee submits proof, and the regulatory authority finds, that;

164.110. The finding of the Division under R645-300-162 was erroneous;

164.120. The permittee or other person responsible has abated the violation on which the finding was based, or paid the penalty or fee, to the satisfaction of the responsible agency;

164.130. The violation, penalty or fee is the subject of a good faith appeal, or of an abatement plan or payment schedule with which the permittee or other person responsible is complying to the satisfaction of the responsible agency; or

164.140. Since the finding was made, the permittee has severed any ownership or control link with the person responsible for, and does not continue to be responsible for, the violation, penalty or fee;

164.200. Cessation of operations. After permit suspension or rescission, the permittee shall cease all coal mining and reclamation operations under the permit, except for violation abatement and for reclamation and other environmental protection measures as required by the Division; and

164.300. Right to appeal. The permittee may file an appeal for administrative review of the notice under R645-300-200.

170. Final Compliance Review

After an application is approved, but before the permit is issued, the Division will reconsider its decision to approve the application based on the compliance review required by rule R645-300-132.100 and in light of any new information submitted under R645-301-112.900 and R645-301-113.400.

R645-300-200. Administrative and Judicial Review of Decisions on Permits.

The rules in R645-300-200 present the procedures for performing the entitled activities.

210. Administrative Review.

211. General. Within 30 days after an applicant or permittee is notified of the decision of the Division concerning a determination made under R645-106, an application for approval of exploration required under R645-200, a permit for coal mining and reclamation operations, a permit change, a permit renewal, or a transfer, assignment, or sale of permit rights, the applicant, permittee, or any person with an interest which is or may be adversely affected may request a hearing on the reasons for the decision, in accordance with R645-300-200.

212. Hearings.

212.100. The Board will start the administrative hearing within 30 days of such request. The hearing will be on the record and adjudicatory in nature. No person who presided at an informal

conference under R645-300-123 will either preside at the hearing or participate in the decision following the hearing or administrative appeal.

212.200. The Board may, under such conditions as it prescribes, grant such temporary relief as it deems appropriate, pending final determination of the proceeding, if:

212.210. All parties to the proceeding have been notified and given an opportunity to be heard on a request for temporary relief;

212.220. The person requesting that relief shows that there is a substantial likelihood that he or she will prevail on the merits of the final determination of the proceeding;

212.230. The relief sought will not adversely affect the public health or safety, or cause significant, imminent environmental harm to land, air, or water resources; and

212.240. The relief sought is not the issuance of a permit where a permit has been denied, in whole or in part, by the Division except that continuation under an existing permit may be allowed where the operation has a valid permit issued under 40-10-11 of the Act.

212.300. The hearing will be conducted by the Board under the terms of the R641 Rules, including the requirement that there be no ex parte contact between the Board and representatives of parties appearing before the Board.

212.400. Within 30 days after the close of the record, the Board will issue and furnish the applicant and each person who participated in the hearing with the written findings of fact, conclusions of law, and order of the Board with respect to the appeal of the decision.

220. Judicial Review.

221. General. Any applicant or any person with an interest which is or may be adversely affected and who has participated in the administrative hearings as an objector may appeal as provided in R645-300-222 or R645-300-223 if:

221.100. The applicant or person is aggrieved by the decision of the Board in the administrative hearing conducted pursuant to R645-300-200; or

221.200. The Board during administrative review under R645-300-200 fails to act within applicable time limits specified in the State Program.

222. State Program. Action of the Division or Board will be subject to judicial review by a court of competent jurisdiction, as provided for in the State Program, but the availability of such review will not be construed to limit the operation of the rights established in 40-10-21 of the Act.

223. Federal Lands Program. The action of the Division or Board is subject to judicial review by the United States District Court for the district in which the coal exploration or coal mining and reclamation operation is or would be located, in the time and manner provided for in Section 526(a)(2) and (b) of the Federal Act. The availability of such review will not be considered to limit the operations of rights established in Section 520 of the Federal Act.

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Authorizing, and Implemented or Interpreted Law: 40-10-1 et seq.

Tab 7

R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-301. Coal Mine Permitting: Permit Application Requirements.
R645-301-400. Land Use and Air Quality.

The rules in R645-301-400 present the requirements for information related to Land Use and Air Quality which are to be included in each permit application.

410. Land Use. Each permit application will include a descriptions of the premining and proposed postmining land use(s).

411. Environmental Description.

411.100. Premining Land-Use Information. The application will contain a statement of the condition and capability of the land which will be affected by coal mining and reclamation operations within the proposed permit area, including:

411.110. A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five years before the anticipated date of beginning the proposed operations, the historic use of the land will also be described;

411.120 A narrative of land capability which analyzes the land-use description in conjunction with other environmental resources information required under R645-301-411.100, and R645-301 and R645-302. The narrative will provide analyses of the capability of the land before any coal mining and reclamation operations to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the area proposed to be affected by coal mining and reclamation operations; and

411.130. A description of the existing land uses and land-use classifications under local law, if any, of the proposed permit and adjacent areas.

411.140. Cultural and Historic Resources Information. The application will contain maps as described under R645-301-411.141 and a supporting narrative which describe the nature of cultural and historic resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas. The description will be based on all available information, including, but not limited to, information from the State Historic Preservation Officer and from local archeological, historic, and cultural preservation agencies.

411.141. Cultural and Historic Resources Maps. These maps will clearly show:

411.141.1. The boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas;

411.141.2. Each cemetery that is located in or within 100 feet of the proposed permit area; and

411.141.3. Any land within the proposed permit area which is within the boundaries of any units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act.

411.142. Coordination with the State Historic Preservation Officer (SHPO). The narrative presented under R645-301-411.140

Officer (SHPO). The narrative presented under R645-301-411.140 will also describe coordination efforts with and present evidence of clearances by the SHPO. For any publicly owned parks or places listed on the National Register of Historic Places that may be adversely affected by the proposed coal mining and reclamation operations, each plan will describe the measures to be used:

411.142.1. To prevent adverse impacts; or

411.142.2. If valid existing rights exist, as determined under R645-103-231, or joint agency approval is to be obtained under R645-103-236, to minimize adverse impacts.

411.143. The Division may require the applicant to identify and evaluate important historic and archeological resources that may be eligible for listing on the national Register of Historic Places through:

411.143.1. Collection of additional information;

411.143.2. Conducting field investigations; or

411.143.3. Other appropriate analyses.

411.144. The Division may require the applicant to protect historic or archeological properties listed on or eligible for listing on the National Register of Historic Places through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed before the properties are affected by any mining operation.

411.200. Previous Mining Activity. The application will state whether the proposed permit area has been previously mined, and, if so, the following information, if available:

411.210. The type of mining method used;

411.220. The coal seams or other mineral strata mined;

411.230. The extent of coal or other minerals removed;

411.240. The approximate dates of past mining; and

411.250. The uses of the land preceding mining.

412. Reclamation Plan.

412.100. Postmining Land-Use Plan. Each application will contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land-use policies and plans. The plan will explain:

412.110. How the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use;

412.120. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, where range or grazing is the proposed postmining use, the detailed management plans to be implemented;

412.130. Where a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900; and

412.140. The consideration which has been given to making all of the proposed coal mining and reclamation operations

consistent with surface owner plans and applicable Utah and local land-use plans and programs.

412.200. Land Owner or Surface Manager Comments. The description will be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

412.300. Suitability and Compatibility. Assure that final fills containing excess spoil are suitable for reclamation and revegetation and are compatible with the natural surroundings and the approved postmining land use.

413. Performance Standards.

413.100. Postmining Land Use. All disturbed areas will be restored in a timely manner to conditions that are capable of supporting:

413.110. The uses they were capable of supporting before any mining; or

413.120. Higher or better uses.

413.200. Determining Premining Uses of Land.

413.210. The premining uses of land to which the postmining land use is compared will be those uses which the land previously supported, if the land has not been previously mined and has been properly managed.

413.220. The postmining land use for land that has been previously mined and not reclaimed will be judged on the basis of the land use that existed prior to any mining: provided that, if the land cannot be reclaimed to the land use that existed prior to any mining because of the previously mined condition, the postmining land use will be judged on the basis of the highest and best use that can be achieved which is compatible with surrounding areas and does not require the disturbance of areas previously unaffected by mining.

413.300. Criteria for Alternative Postmining Land Uses. Higher or better uses may be approved by the Division as alternative postmining land uses after consultation with the landowner or the land management agency having jurisdiction over the lands, if the proposed uses meet the following criteria:

413.310. There is a reasonable likelihood for achievement of the use;

413.320. The use does not present any actual or probable hazard to public health or safety, or threat of water diminution or pollution; and

413.330. The use will not:

413.331. Be impractical or unreasonable;

413.332. Be inconsistent with applicable land-use policies or plans;

413.333. Involve unreasonable delay in implementation; or

413.334. Cause or contribute to violation of federal, Utah, or local law.

414. Interpretation of R645-301-412 and R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-

302-271.900 for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, Reclamation Plan: Postmining Land Use. The requirements of R645-301-412-130, for approval of an alternative postmining land use, may be met by requesting approval through the permit revision procedures of R645-303-220 rather than requesting such approval in the original permit application. The original permit application, however, must demonstrate that the land will be returned to its premining land-use capability as required by R645-301-413.100. An application for a permit revision of this type:

414.100. Must be submitted in accordance with the filing deadlines of R645-303-220;

414.200. Will constitute a significant alteration from the mining operations contemplated by the original permit; and

414.300. Will be subject to the requirements of R645-300-120 through R645-300-155 and R645-300-200.

420. Air Quality.

421. Coal mining and reclamation operations will be conducted in compliance with the requirements of the Clean Air Act (42 U.S.C. Sec. 7401 et seq.) and any other applicable Utah or federal statutes and regulations containing air quality standards.

422. The application will contain a description of coordination and compliance efforts which have been undertaken by the applicant with the Utah Division of Air Quality.

423. For all SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates exceeding 1,000,000 tons of coal per year, the application will contain an air pollution control plan which includes the following:

423.100 An air quality monitoring program to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices proposed under R645-301-423.200 to comply with federal and Utah air quality standards; and

423.200 A plan for fugitive dust control practices as required under R645-301-244.100 and R645-301-244.300.

424. All plans for SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates of 1,000,000 tons of coal per year or less, will include a plan for fugitive dust control practices as required under R645-301-244 and R645-301-244.300.

425. All plans for SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates of 1,000,000 tons or less will include an air quality monitoring program, if required by the division, to provide sufficient data to judge the effectiveness of the fugitive dust control plan required under R645-301-424.

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Tab 8

R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-301. Coal Mine Permitting: Permit Application Requirements.
R645-301-700. Hydrology.

710. Introduction.

711. General Requirements. Each permit application will include descriptions of:

711.100. Existing hydrologic resources as given under R645-301-720.

711.200. Proposed operations and potential impacts to the hydrologic balance as given under R645-301-730.

711.300. The methods and calculations utilized to achieve compliance with hydrologic design criteria and plans given under R645-301-740.

711.400. Applicable hydrologic performance standards as given under R645-301-750.

711.500. Reclamation activities as given under R645-301-760.

712. Certification. All cross sections, maps and plans required by R645-301-722 as appropriate, and R645-301-731.700 will be prepared and certified according to R645-301-512.

713. Inspection. Impoundments will be inspected as described under R645-301-514.300.

720. Environmental Description.

721. General Requirements. Each permit application will include a description of the existing, premining hydrologic resources within the proposed permit and adjacent areas that may be affected or impacted by the proposed coal mining and reclamation operation.

722. Cross Sections and Maps. The application will include cross sections and maps showing:

722.100. Location and extent of subsurface water, if encountered, within the proposed permit or adjacent areas. For UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, location and extent will include, but not limited to areal and vertical distribution of aquifers, and portrayal of seasonal differences of head in different aquifers on cross-sections and contour maps;

722.200. Location of surface water bodies such as streams, lakes, ponds and springs, constructed or natural drains, and irrigation ditches within the proposed permit and adjacent areas;

722.300. Elevations and locations of monitoring stations used to gather baseline data on water quality and quantity in preparation of the application;

722.400. Location and depth, if available, of water wells in the permit area and adjacent area; and

722.500. Sufficient slope measurements or contour maps to adequately represent the existing land surface configuration of proposed disturbed areas for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES and the proposed permit area for SURFACE COAL MINING AND RECLAMATION ACTIVITIES will be measured and recorded to take into account natural variations in slope, to provide accurate representation of the range of natural slopes and reflect geomorphic differences of the area to be disturbed.

723. Sampling and Analysis. All water quality analyses performed to meet the requirements of R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731,

301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-731.210 through R645-301-731.223 will be conducted according to the methodology in the current edition of "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434. Water quality sampling performed to meet the requirements of R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-731.210 through R645-301-731.223 will be conducted according to either methodology listed above when feasible. "Standard Methods for the Examination of Water and Wastewater" is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 Fifteenth Street, NW, Washington, D. C. 20036.

724. Baseline Information. The application will include the following baseline hydrologic, geologic and climatologic information, and any additional information required by the Division.

724.100. Ground Water Information. The location and ownership for the permit and adjacent areas of existing wells, springs and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions will include, at a minimum, total dissolved solids or specific conductance corrected to 25 degrees C, pH, total iron and total manganese. Ground-water quantity descriptions will include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.

724.200. Surface water information. The name, location, ownership and description of all surface-water bodies such as streams, lakes and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water quality descriptions will include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25 degrees C, pH, total iron and total manganese. Baseline acidity and alkalinity information will be provided if there is a potential for acid drainage from the proposed mining operation. Water quantity descriptions will include, at a minimum, baseline information on seasonal flow rates.

724.300. Geologic Information. Each application will include geologic information in sufficient detail, as given under R645-301-624, to assist in:

724.310. Determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary; and

724.320. Determining whether reclamation as required by the R645 Rules can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

724.400. Climatological Information.

724.410. When requested by the Division, the permit application will contain a statement of the climatological factors that are representative of the proposed permit area, including:

724.411. The average seasonal precipitation;

724.412. The average direction and velocity of prevailing winds; and

724.413. Seasonal temperature ranges.

724.420. The Division may request such additional data as deemed necessary to ensure compliance with the requirements of R645-301 and R645-302.

724.500. Supplemental information. If the determination of the PHC required by R645-301-728 indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under R645-301-724.100 and R645-301-724.200 will be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analysis of other water quality or quantity characteristics.

724.700. Each permit application that proposes to conduct coal mining and reclamation operations within a valley holding a stream or in a location where the permit area or adjacent area includes any stream will meet the requirements of R645-302-320.

725. Baseline Cumulative Impact Area Information.

725.100. Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed coal mining and reclamation operation and all anticipated coal mining and reclamation operations on surface- and ground-water systems as required by R645-301-729 will be provided to the Division if available from appropriate federal or state agencies.

725.200. If this information is not available from such agencies, then the applicant may gather and submit this information to the Division as part of the permit application.

725.300. The permit will not be approved until the necessary hydrologic and geologic information is available to the Division.

726. Modeling. The use of modeling techniques, interpolation or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required by the Division for each site even when such techniques are used.

727. Alternative Water Source Information. If the probable hydrologic consequences determination required by R645-301-728 indicates that the proposed SURFACE COAL MINING AND RECLAMATION ACTIVITY may proximately result in contamination, diminution, or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose, then the application will contain information on water availability and alternative water sources, including the suitability of alternative water sources for existing premining uses and approved

postmining land uses.

728. Probable Hydrologic Consequences (PHC) Determination.

728.100. The permit application will contain a determination of the PHC of the proposed coal mining and reclamation operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

728.200. The PHC determination will be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site.

728.300. The PHC determination will include findings on:

728.310. Whether adverse impacts may occur to the hydrologic balance;

728.320. Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface- or ground-water supplies;

728.330. What impact the proposed coal mining and reclamation operation will have on:

728.331. Sediment yield from the disturbed area;

728.332. Acidity, total suspended and dissolved solids and other important water quality parameters of local impact;

728.333. Flooding or streamflow alteration;

728.334. Ground-water and surface-water availability; and

728.335. Other characteristics as required by the Division; and

728.340. Whether the proposed SURFACE COAL MINING AND RECLAMATION ACTIVITY will proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose; Or

728.350. Whether the UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992 may result in contamination, diminution or interruption of State-appropriated Water in existence within the proposed permit or adjacent areas at the time the application is submitted.

728.400. An application for a permit revision will be reviewed by the Division to determine whether a new or updated PHC determination will be required.

729. Cumulative Hydrologic Impact Assessment (CHIA).

729.100. The Division will provide an assessment of the probable cumulative hydrologic impacts of the proposed coal mining and reclamation operation and all anticipated coal mining and reclamation operations upon surface- and ground-water systems in the cumulative impact area. The CHIA will be sufficient to determine, for purposes of permit approval whether the proposed coal mining and reclamation operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The Division may allow the applicant to submit data and analyses relevant to the CHIA with the permit application.

729.200. An application for a permit revision will be reviewed by the Division to determine whether a new or updated CHIA will be required.

730. Operation Plan.

731. General Requirements. The permit application will include a plan, with maps and descriptions, indicating how the relevant requirements of R645-301-730, R645-301-740, R645-301-750 and R645-301-760 will be met. The plan will be specific to the local hydrologic conditions. It will contain the steps to be taken during coal mining and reclamation operations through bond release to minimize disturbance to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to support approved postmining land use in accordance with the terms and conditions of the approved permit and performance standards of R645-301-750; to comply with the Clean Water Act (33 U.S.C. 1251 et seq.); and to meet applicable federal and Utah water quality laws and regulations. The plan will include the measures to be taken to: avoid acid or toxic drainage; prevent to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water treatment facilities when needed; and control drainage. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES the plan will include measures to be taken to protect or replace water rights and restore approximate premining recharge capacity. The plan will specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645-301-728 and will include preventative and remedial measures.

The Division may require additional preventative, remedial or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Coal mining and reclamation operations that minimize water pollution and changes in flow will be used in preference to water treatment.

731.100. Hydrologic-Balance Protection.

731.110. Ground-Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

731.111. Ground-water quality will be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic or other harmful infiltration to ground-water systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the ground water; and

731.112. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES ground-water quantity will be protected by handling earth materials and runoff in a manner that will restore approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

731.120. Surface-Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

731.121. Surface-water quality will be protected by handling earth materials, ground-water discharges and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology

currently available, additional contributions of suspended solids to streamflow outside the permit area; and, otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching or other reclamation and remedial practices are not adequate to meet the requirements of R645-301-731.100 through R645-301-731.522, R645-301-731.800 and R645-301-751, the operator will use and maintain the necessary water treatment facilities or water quality controls; and

731.122. Surface-water quantity and flow rates will be protected by handling earth materials and runoff in accordance with the steps outlined in the plan approved under R645-301-731.

731.200. Water Monitoring.

731.210. Ground-Water Monitoring. Ground-water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

731.211. The permit application will include a ground-water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in R645-301-731. It will identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 degrees C, pH, total iron, total manganese and water levels will be monitored;

731.212. Ground-water will be monitored and data will be submitted at least every three months for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, then the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731;

731.213. If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Division;

731.214. Ground-water monitoring will proceed through mining and continue during reclamation until bond release. Consistent with the procedures of R645-303-220 through R645-303-228, the Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using the monitoring data obtained under R645-301-731.214 that:

731.214.1. The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the

permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses and the SURFACE COAL MINING AND RECLAMATION ACTIVITY has protected or replaced the water rights of other users; or

731.214.2. Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under R645-301-731.211.

731.215. Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of ground water on-site and off-site will be properly installed, maintained and operated and will be removed by the operator when no longer needed.

731.220. Surface-Water Monitoring. Surface-water monitoring will be conducted according to the plan approved under R645-301-731.220 and the following:

731.221. The permit application will include a surface-water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in R645-301-731 as well as the effluent limitations found in R645-301-751;

731.222. The plan will identify the surface water quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance:

731.222.1. At all monitoring locations in streams, lakes and impoundments, that are potentially impacted or into which water will be discharged and at upstream monitoring locations, the total dissolved solids or specific conductance corrected to 25 degrees C, total suspended solids, pH, total iron, total manganese and flow will be monitored; and

731.222.2. For point-source discharges, monitoring will be conducted in accordance with 40 CFR Parts 122 and 123, R645-301-751 and as required by the Utah Division of Environmental Health for National Pollutant Discharge Elimination System (NPDES) permits;

731.223. Surface-water monitoring data will be submitted at least every three months for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analysis of any surface water sample indicates noncompliance with the permit conditions, the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731. The reporting requirements of this paragraph do not exempt the operator from meeting any National Pollutant Discharge Elimination System (NPDES) reporting requirements;

731.224. Surface-water monitoring will proceed through mining and continue during reclamation until bond release. Consistent with R645-303-220 through R645-303-228, the Division

may modify the monitoring requirements, except those required by the Utah Division of Environmental Health, including the parameters covered and sampling frequency if the operator demonstrates, using the monitoring data obtained under R645-301-731.224 that:

731.224.1. The operator has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses and the SURFACE COAL MINING AND RECLAMATION ACTIVITY has protected or replaced the water rights of other users; or

731.224.2. Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under R645-301-731.221.

731.225. Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of surface water on-site and off-site will be properly installed, maintained and operated and will be removed by the operator when no longer needed.

731.300. Acid- and Toxic-Forming Materials.

731.310. Drainage from acid- and toxic-forming materials and underground development waste into surface water and ground water will be avoided by:

731.311. Identifying and burying and/or treating, when necessary, materials which may adversely affect water quality, or be detrimental to vegetation or to public health and safety if not buried and/or treated; and

731.312. Storing materials in a manner that will protect surface water and ground water by preventing erosion, the formation of polluted runoff and the infiltration of polluted water. Storage will be limited to the period until burial and/or treatment first become feasible, and so long as storage will not result in any risk of water pollution or other environmental damage.

731.320. Storage, burial or treatment practices will be consistent with other material handling and disposal provisions of R645 Rules.

731.400. Transfer of Wells. Before final release of bond, exploratory or monitoring wells will be sealed in a safe and environmentally sound manner in accordance with R645-301-631, R645-301-738, and R645-301-765. With the prior approval of the Division, wells may be transferred to another party for further use. However, at a minimum, the conditions of such transfer will comply with Utah and local laws and the permittee will remain responsible for the proper management of the well until bond release in accordance with R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.

731.500. Discharges.

731.510. Discharges into an underground mine.

731.511. Discharges into an underground mine are prohibited, unless specifically approved by the Division after a demonstration that the discharge will:

731.511.1. Minimize disturbance to the hydrologic balance on

the permit area, prevent material damage outside the permit area and otherwise eliminate public hazards resulting from coal mining and reclamation operations;

731.511.2. Not result in a violation of applicable water quality standards or effluent limitations;

731.511.3. Be at a known rate and quality which will meet the effluent limitations of R645-301-751 for pH and total suspended solids, except that the pH and total suspended solids limitations may be exceeded, if approved by the Division; and

731.511.4. Meet with the approval of MSHA.

731.512. Discharges will be limited to the following:

731.512.1. Water;

731.512.2. Coal processing waste;

731.512.3. Fly ash from a coal fired facility;

731.512.4. Sludge from an acid-mine-drainage treatment facility;

731.512.5. Flue-gas desulfurization sludge;

731.512.6. Inert materials used for stabilizing underground mines; and

731.512.7. Underground mine development wastes.

731.513. Water from the underground workings of an UNDERGROUND COAL MINING AND RECLAMATION ACTIVITY may be diverted into other underground workings according to the requirements of R645-301-731.100 through R645-301-731.522 and R645-301-731.800.

731.520. Gravity Discharges from UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES.

731.521. Surface entries and accesses to underground workings will be located and managed to prevent or control gravity discharge of water from the mine. Gravity discharges of water from an underground mine, other than a drift mine subject to R645-301-731.522, may be allowed by the Division if it is demonstrated that the untreated or treated discharge complies with the performance standards of R645-301 and R645-302 and any additional NPDES permit requirements.

731.522. Notwithstanding anything to the contrary in R645-301-731.521, the surface entries and accesses of drift mines first used after January 21, 1981 and located in acid-producing or iron-producing coal seams will be located in such a manner as to prevent any gravity discharge from the mine.

731.530. State-appropriated water supply. The permittee will promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992, if the affected water supply was in existence before the date the Division received the permit application for the activities causing the loss, contamination or interruption. The baseline hydrologic and geologic information required in R645-301-700. will be used to determine the impact of mining activities upon the water supply.

731.600. Stream Buffer Zones.

731.610. No land within 100 feet of a perennial stream or an intermittent stream or an ephemeral stream that drains a watershed of at least one square mile will be disturbed by coal mining and reclamation operations, unless the Division specifically

authorizes coal mining and reclamation operations closer to, or through, such a stream. The Division may authorize such activities only upon finding that:

731.611. Coal mining and reclamation operations will not cause or contribute to the violation of applicable Utah or federal water quality standards and will not adversely affect the water quantity and quality or other environmental resources of the stream; and

731.612. If there will be a temporary or permanent stream channel diversion, it will comply with R645-301-742.300.

731.620. The area not to be disturbed will be designated as a buffer zone, and the operator will mark it as specified in R645-301-521.260.

731.700. Cross Sections and Maps. Each application will contain for the proposed permit area:

731.710. A map showing the locations of water supply intakes for current users of surface water flowing into, out of and within a hydrologic area defined by the Division, and those surface waters which will receive discharges from affected areas in the proposed permit area;

731.720. A map showing the locations of each water diversion, collection, conveyance, treatment, storage and discharge facility to be used. The map will be prepared and certified according to R645-301-512;

731.730. A map showing locations and elevations of each station to be used for water monitoring during coal mining and reclamation operations. The map will be prepared and certified according to R645-301-512;

731.740. A map showing the locations of each existing and proposed sedimentation pond, impoundment and coal processing waste bank, dam or embankment. The map will be prepared and certified according to R645-301-512;

731.750. Cross sections for each existing and proposed sedimentation pond, impoundment and coal processing waste bank, dam or embankment. The cross sections will be prepared and certified according to R645-301-512.200; and

731.760. Other relevant cross sections and maps required by the Division depending on the structures and facilities located in the permit area.

731.800. Water Rights and Replacement. Any person who conducts SURFACE COAL MINING AND RECLAMATION ACTIVITIES will replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in R645-301-624.100 through R645-301-624.200, R645-301-625, R645-301-626, R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-731.210 through R645-301-731.223 will be used to determine the extent of the impact of mining upon ground water and surface water.

732. Sediment Control Measures.

732.100. Siltation Structures. Siltation structures will be constructed and maintained to comply with R645-301-742.214. Any siltation structure that impounds water will be constructed and maintained to comply with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

732.200. Sedimentation Ponds.

732.210. Sedimentation ponds whether temporary or permanent, will be designed in compliance with the requirements of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763. Any sedimentation pond or earthen structure which will remain on the proposed permit area as a permanent water impoundment will also be constructed and maintained to comply with the requirements of R645-301-743, R645-301-533.100 through R645-301-533.600, R645-301-512.240, R645-301-514.310 through R645-301-514.321 and R645-301-515.200.

732.220. Each plan will, at a minimum, comply with the MSHA requirements given under R645-301-513.100 and R645-301-513.200.

732.300. Diversions. All diversions will be constructed and maintained to comply with the requirements of R645-301-742.100 and R645-301-742.300.

732.400. Road Drainage. All roads will be constructed, maintained and reconstructed to comply with R645-301-742.400.

732.410. The permit application will contain a description of measures to be taken to obtain Division approval for alteration or relocation of a natural drainageway under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, R645-301-752.200, and R645-301-762.

732.420. The permit application will contain a description of measures, other than use of a rock headwall, to be taken to protect the inlet end of a ditch relief culvert, for Division approval under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, R645-301-752.200, and R645-301-762.

733. Impoundments.

733.100. General Plans. Each permit application will contain a general plan and detailed design plans for each proposed water impoundment within the proposed permit area. Each general plan will:

733.110. Be prepared and certified as described under R645-301-512;

733.120. Contain maps and cross sections;

733.130. Contain a narrative that describes the structure;

733.140. Contain the results of a survey as described under R645-301-531;

733.150. Contain preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure; and

733.160. Contain a certification statement which includes a schedule setting forth the dates when any detailed design plans for structures that are not submitted with the general plan will be submitted to the Division. The Division will have approved, in

writing, the detailed design plan for a structure before construction of the structure begins.

733.200. Permanent and Temporary Impoundments.

733.210. Permanent and temporary impoundments will be designed to comply with the requirements of R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.226, R645-301-743.240, and R645-301-743. Each plan for an impoundment meeting the size or other criteria of the Mine Safety and Health Administration will comply with the requirements of 30 CFR 77.216-1 and 30 CFR 77.216-2. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will be submitted to the Division as part of the permit application package. For impoundments not included in R645-301-533.610 the Division may establish through the State program approval process engineering design standards that ensure stability comparable to a 1.3 minimum static safety factor in lieu of engineering tests to establish compliance with the minimum static safety factor of 1.3 specified in R645-301-533.110.

733.220. A permanent impoundment of water may be created, if authorized by the Division in the approved permit based upon the following demonstration:

733.221. The size and configuration of such impoundment will be adequate for its intended purposes;

733.222. The quality of impounded water will be suitable on a permanent basis for its intended use and, after reclamation, will meet applicable Utah and federal water quality standards, and discharges from the impoundment will meet applicable effluent limitations and will not degrade the quality of receiving water below applicable Utah and federal water quality standards;

733.223. The water level will be sufficiently stable and be capable of supporting the intended use;

733.224. Final grading will provide for adequate safety and access for proposed water users;

733.225. The impoundment will not result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses; and

733.226. The impoundment will be suitable for the approved postmining land use.

733.230. The Division may authorize the construction of temporary impoundments as part of coal mining and reclamation operations.

733.240. If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division according to R645-301-515.200.

734. Discharge Structures. Discharge structures will be constructed and maintained to comply with R645-301-744.

735. Disposal of Excess Spoil. Areas designated for the disposal of excess spoil and excess spoil structures will be constructed and maintained to comply with R645-301-745.

736. Coal Mine Waste. Areas designated for the disposal of coal mine waste and coal mine waste structures will be constructed and maintained to comply with R645-301-746.

737. Noncoal Mine Waste. Noncoal mine waste will be stored and final disposal of noncoal mine waste will comply with R645-301-747.

738. Temporary Casing and Sealing of Wells. Each well which has been identified in the approved permit application to be used to monitor ground water conditions will comply with R645-301-748 and be temporarily sealed before use and for the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES protected during use by barricades, or fences, or other protective devices approved by the Division. These devices will be periodically inspected and maintained in good operating condition by the operator conducting SURFACE COAL MINING AND RECLAMATION ACTIVITIES.

740. Design Criteria and Plans.

741. General Requirements. Each permit application will include site-specific plans that incorporate minimum design criteria as set forth in R645-301-740 for the control of drainage from disturbed and undisturbed areas.

742. Sediment Control Measures.

742.100. General Requirements.

742.110. Appropriate sediment control measures will be designed, constructed and maintained using the best technology currently available to:

742.111. Prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area;

742.112. Meet the effluent limitations under R645-301-751; and

742.113. Minimize erosion to the extent possible.

742.120. Sediment control measures include practices carried out within and adjacent to the disturbed area. The sedimentation storage capacity of practices in and downstream from the disturbed areas will reflect the degree to which successful mining and reclamation techniques are applied to reduce erosion and control sediment. Sediment control measures consist of the utilization of proper mining and reclamation methods and sediment control practices, singly or in combination. Sediment control methods include, but are not limited to:

742.121. Retaining sediment within disturbed areas;

742.122. Diverting runoff away from disturbed areas;

742.123. Diverting runoff using protected channels or pipes through disturbed areas so as not to cause additional erosion;

742.124. Using straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds and other measures that reduce overland flow velocities, reduce runoff volumes or trap sediment;

742.125. Treating with chemicals; and

742.126. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, treating mine drainage in underground sumps.

742.200. Siltation Structures. Siltation structures shall be designed in compliance with the requirements of R645-301-742.

742.210. General Requirements.

742.211. Additional contributions of suspended solids and sediment to streamflow or runoff outside the permit area will be

prevented to the extent possible using the best technology currently available.

742.212. Siltation structures for an area will be constructed before beginning any coal mining and reclamation operations in that area and, upon construction, will be certified by a qualified registered professional engineer to be constructed as designed and as approved in the reclamation plan.

742.213. Any siltation structure which impounds water will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

742.214. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, any point-source discharge of water from underground workings to surface waters which does not meet the effluent limitations of R645-301-751 will be passed through a siltation structure before leaving the permit area.

742.220. Sedimentation Ponds.

742.221. Sedimentation ponds, when used, will:

742.221.1. Be used individually or in series;

742.221.2. Be located as near as possible to the disturbed area and out of perennial streams unless approved by the Division; and

742.221.3. Be designed, constructed, and maintained to:

742.221.31. Provide adequate sediment storage volume;

742.221.32. Provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations;

742.221.33. Contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Division based on terrain, climate, or other site-specific conditions and on a demonstration by the operator that the effluent limitations of R645-301-751 will be met;

742.221.34. Provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32.

742.221.35. Minimize, to the extent possible, short circuiting;

742.221.36. Provide periodic sediment removal sufficient to maintain adequate volume for the design event;

742.221.37. Ensure against excessive settlement;

742.221.38. Be free of sod, large roots, frozen soil, and acid- or toxic forming coal-processing waste; and

742.221.39. Be compacted properly.

742.222. Sedimentation ponds meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will comply with all the requirements of that section, and will have a single spillway or principal and emergency spillways that in combination will safely pass a 100-year, 6-hour precipitation event or greater event as demonstrated to be necessary by the Division.

742.223. Sedimentation ponds not meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will provide a combination of principal and emergency spillways that will safely discharge a 25-year, 6-hour precipitation event or greater event as demonstrated to be needed by the Division. Such ponds may use

a single open channel spillway if the spillway is:

742.223.1. Of nonerodible construction and designed to carry sustained flows; or

742.223.2. Earth- or grass-lined and designed to carry short-term infrequent flows at non-erosive velocities where sustained flows are not expected.

742.224. In lieu of meeting the requirements of R645-301-742.223.1 and 742.223.2 the Division may approve a temporary impoundment as a sedimentation pond that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer in accordance with R645-301-512.200 that the sedimentation pond will safely control the design precipitation event. The water will be removed from the pond in accordance with current, prudent, engineering practices and any sediment pond so used will not be located where failure would be expected to cause loss of life or serious property damage.

742.225. An exception to the sediment pond location guidance in R645-301-742.224 may be allowed where:

742.225.1. Impoundments meeting the NRCS Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR Sec. 77.216(a) shall be designed to control the precipitation of the probable maximum precipitation of a 6-hour event, or greater event specified by the Division.

742.225.2. Impoundments not included in R645-301-742.225.1 shall be designed to control the precipitation of the 100-year 6-hour event, or greater event if specified by the Division.

742.230. Other Treatment Facilities.

742.231. Other treatment facilities will be designed to treat the 10-year, 24-hour precipitation event unless a lesser design event is approved by the Division based on terrain, climate, other site-specific conditions and a demonstration by the operator that the effluent limitations of R645-301-751 will be met.

742.232. Other treatment facilities will be designed in accordance with the applicable requirements of R645-301-742.220.

742.240. Exemptions. Exemptions to the requirements of R645-301-742.200 and R645-301-763 may be granted if the disturbed drainage area within the total disturbed area is small and the operator demonstrates that siltation structures and alternate sediment control measures are not necessary for drainage from the disturbed areas to meet the effluent limitations under R645-301-751 or the applicable Utah and federal water quality standards for the receiving waters.

742.300. Diversions.

742.310. General Requirements.

742.311. With the approval of the Division, any flow from mined areas abandoned before May 3, 1978, and any flow from undisturbed areas or reclaimed areas, after meeting the criteria of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763 for siltation structure removal, may be diverted from disturbed areas by means of temporary or permanent diversions. All diversions will be

designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area and to assure the safety of the public. Diversions will not be used to divert water into underground mines without approval of the Division in accordance with R645-301-731.510.

742.312. The diversion and its appurtenant structures will be designed, located, constructed, maintained and used to:

742.312.1. Be stable;

742.312.2. Provide protection against flooding and resultant damage to life and property;

742.312.3. Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and

742.312.4. Comply with all applicable local, Utah, and federal laws and regulations.

742.313. Temporary diversions will be removed when no longer needed to achieve the purpose for which they were authorized. The land disturbed by the removal process will be restored in accordance with R645-301 and R645-302. Before diversions are removed, downstream water-treatment facilities previously protected by the diversion will be modified or removed, as necessary, to prevent overtopping or failure of the facilities. This requirement will not relieve the operator from maintaining water-treatment facilities as otherwise required. A permanent diversion or a stream channel reclaimed after the removal of a temporary diversion will be designed and constructed so as to restore or approximate the premining characteristics of the original stream channel including the natural riparian vegetation to promote the recovery and the enhancement of the aquatic habitat.

742.314. The Division may specify additional design criteria for diversions to meet the requirements of R645-301-742.300.

742.320. Diversion of Perennial and Intermittent Streams and Ephemeral Streams that Drain a Watershed of at Least One Square Mile.

742.321. Diversion of streams within the permit area may be approved by the Division after making the finding relating to stream buffer zones under R645-301-731.600. This applies to perennial and intermittent streams and ephemeral streams that drain a watershed of at least one square mile.

742.322. The design capacity of channels for temporary and permanent stream channel diversions will be at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion.

742.323. The requirements of R645-301-742.312.2 will be met when the temporary and permanent diversion for perennial and intermittent streams and ephemeral streams that drain a watershed of at least one square mile are designed so that the combination of channel, bank and floodplain configuration is adequate to pass safely the peak runoff of a 10-year, 6-hour precipitation event for a temporary diversion and a 100-year, 6-hour precipitation event for a permanent diversion.

742.324. The design and construction of all stream channel

diversions of perennial and intermittent streams and ephemeral streams that drain a watershed of at least one square mile will be certified by a qualified registered professional engineer as meeting the performance standards of R645-301 and R645-302 and any design criteria set by the Division.

742.330. Diversion of Miscellaneous Flows.

742.331. Miscellaneous flows, which consist of all flows except for perennial and intermittent streams and ephemeral streams that drain a watershed of at least one square mile, may be diverted away from disturbed areas if required or approved by the Division. Miscellaneous flows will include ground-water discharges and ephemeral streams that drain a watershed of less than one square mile.

742.332. The design, location, construction, maintenance, and removal of diversions of miscellaneous flows will meet all of the performance standards set forth in R645-301-742.310.

742.333. The requirements of R645-301-742.312.2 will be met when the temporary and permanent diversions for miscellaneous flows are designed so that the combination of channel, bank and floodplain configuration is adequate to pass safely the peak runoff of a 2-year, 6-hour precipitation event for a temporary diversion and a 10-year, 6-hour precipitation event for a permanent diversion.

742.400. Road Drainage.

742.410. All Roads.

742.411. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads will incorporate appropriate limits for surface drainage control, culvert placement, culvert size, and any necessary design criteria established by the Division.

742.412. No part of any road will be located in the channel of an intermittent or perennial stream or an ephemeral stream that drains a watershed of at least one square mile unless specifically approved by the Division in accordance with applicable parts of R645-301-731 through R645-301-742.300.

742.413. Roads will be located to minimize downstream sedimentation and flooding.

742.420. Primary Roads.

742.421. To minimize erosion, a primary road is to be located, insofar as practical, on the most stable available surfaces.

742.422. Stream fords by primary roads are prohibited unless they are specifically approved by the Division as temporary routes during periods of construction.

742.423. Drainage Control.

742.423.1. Each primary road will be designed, constructed or reconstructed and maintained to have adequate drainage control, using structures such as, but not limited to, bridges, ditches, cross drains, and ditch relief drains. The drainage control system will be designed to pass the peak runoff safely from a 10-year, 6-hour precipitation event, or an alternative event of greater size as demonstrated to be needed by the Division.

742.423.2. Drainage pipes and culverts will be constructed to avoid plugging or collapse and erosion at inlets and outlets.

742.423.3. Drainage ditches will be designed to prevent uncontrolled drainage over the road surface and embankment. Trash racks and debris basins will be installed in the drainage ditches where debris from the drainage area may impair the functions of drainage and sediment control structures.

742.423.4. Natural stream channels will not be altered or relocated without the prior approval of the Division in accordance with R645-301-731.100 through R645-301-731.522, R645-301-731.600, R645-301-731.800, R645-301-742.300, and R645-301-751.

742.423.5. Except as provided in R645-301-742.422, drainage structures will be used for stream channel crossings, made using bridges, culverts or other structures designed, constructed and maintained using current, prudent engineering practice.

743. Impoundments.

743.100. General Requirements. The requirements of R645-301-743 apply to both temporary and permanent impoundments. Impoundments meeting the Class B or C criteria for dams in the U.S. Department of Agriculture, Natural Resources Conservation Service Technical Release No. 60 (210-VI-TR60, Oct. 1985), "Earth Dams and Reservoirs," shall comply with the, "Minimum Emergency Spillway Hydrologic Criteria," table in TR-60 and the requirements of this section. Copies may be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, order No. PB 87-157509-AS. Copies may be inspected at the Division of Oil Gas and Mining Offices, 1594 West North Temple, Salt Lake City, Utah 84114 or at the Division of Administrative Rules, Archives Building, Capitol Hill Complex, Salt Lake City, Utah 84114-1021.

743.110. Impoundments meeting the criteria of the MSHA, 30 CFR 77.216(a) will comply with the requirements of 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

743.120. The design of impoundments will be prepared and certified as described under R645-301-512. Impoundments will have adequate freeboard to resist overtopping by waves and by sudden increases in storage volume. Impoundments meeting the NRCS Class B or C criteria for dams in TR-60 shall comply with the freeboard hydrograph criteria in the "Minimum Emergency Spillway Hydrologic Criteria" table in TR-60.

743.130. Impoundments will include either a combination of principal and emergency spillways or a single spillway as specified in 743.131 which will be designed and constructed to safely pass the design precipitation event or greater event specified in R645-301-743.200 or R645-301-743.300.

743.131. The Division may approve a single-open channel spillway that is:

743.131.1. Of nonerodible construction and designed to carry sustained flows; or

743.131.2. Earth-or grass lined and designed to carry short-

term, infrequent flows at non-erosive velocities where sustained flows are not expected.

743.131.3 Except as specified in R645-301-742.224 the required design precipitation event for an impoundment meeting the spillway requirements of R645-301-743.130 is:

743.131.4 For an impoundment meeting the NRCS Class B or C criteria for dams in TR-60, the emergency spillway hydrograph criteria in the "Minimum Emergency Spillway Hydrologic Criteria" table in TR-60, or greater event as specified by the Division.

743.131.5 For an impoundment meeting or exceeding the size or other criteria of 30 CFR Sec. 77.216(a), a 100-year 6-hour event, or greater event as specified by the Division.

743.131.6 For an impoundment not included in R645-301-743.131.4 or 743.131.5, a 25-year 6-hour event, or greater event as specified by the Division.

743.132 In lieu of meeting the requirements of 743.131 the Division may approve an impoundment which meets the requirements of the sediment pond criteria of R645-301-742.224 and 742.225.

743.140. Impoundments will be inspected as described under R645-301-514.300.

743.200. The design precipitation event for the spillways for a permanent impoundment meeting the size or other criteria of MSHA rule 30 CFR 77.216(a) is a 100-year, 6-hour precipitation event, or such larger event as demonstrated to be needed by the Division.

743.300. The design precipitation event for the spillways for an impoundment not meeting the size or other criteria of MSHA rule 30 CFR 77.216(a) is a 25-year, 6-hour precipitation event, or such larger event as demonstrated to be needed by the Division.

744. Discharge Structures.

744.100. Discharge from sedimentation ponds, permanent and temporary impoundments, coal processing waste dams and embankments, and diversions will be controlled, by energy dissipators, riprap channels and other devices, where necessary to reduce erosion to prevent deepening or enlargement of stream channels, and to minimize disturbance of the hydrologic balance.

744.200. Discharge structures will be designed according to standard engineering design procedures.

745. Disposal of Excess Spoil.

745.100. General Requirements.

745.110. Excess spoil will be placed in designated disposal areas within the permit area, in a controlled manner to:

745.111. Minimize the adverse effects of leachate and surface water runoff from the fill on surface and ground waters;

745.112. Ensure permanent impoundments are not located on the completed fill. Small depressions may be allowed by the Division if they are needed to retain moisture or minimize erosion, create and enhance wildlife habitat or assist revegetation, and if they are not incompatible with the stability of the fill; and

745.113. Adequately cover or treat excess spoil that is acid- and toxic-forming with nonacid nontoxic material to control the impact on surface and ground water in accordance with R645-301-731.300 and to minimize adverse effects on plant growth and

the approved postmining land use.

745.120. Drainage control. If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the fill design will include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill and ensure stability.

745.121. Diversions will comply with the requirements of R645-301-742.300.

745.122. Underdrains will consist of durable rock or pipe, be designed and constructed using current, prudent engineering practices and meet any design criteria established by the Division. The underdrain system will be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area and will be protected from piping and contamination by an adequate filter. Rock underdrains will be constructed of durable, nonacid-, nontoxic-forming rock (e.g., natural sand and gravel, sandstone, limestone or other durable rock) that does not slake in water or degrade to soil materials and which is free of coal, clay or other nondurable material. Perforated pipe underdrains will be corrosion resistant and will have characteristics consistent with the long-term life of the fill.

745.200. Valley Fills and Head-of-Hollow Fills.

745.210. Valley fills and head-of-hollow fills will meet the applicable requirements of R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, and R645-301-745.100 and the requirements of R645-301-745.200 and R645-301-535.200.

745.220. Drainage Control.

745.221. The top surface of the completed fill will be graded such that the final slope after settlement will be toward properly designed drainage channels. Uncontrolled surface drainage may not be directed over the outslope of the fill.

745.222. Runoff from areas above the fill and runoff from the surface of the fill will be diverted into stabilized diversion channels designed to meet the requirements of R645-301-742.300 and to safely pass the runoff from a 100-year, 6-hour precipitation event.

745.300. Durable Rock Fills. The Division may approve disposal of excess durable rock spoil provided the following conditions are satisfied:

745.310. Except as provided in R645-301-745.300, the requirements of R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, and R645-301-745.100 are met;

745.320. The underdrain system may be constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, provided the resulting underdrain system is capable of carrying anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and

springs in the foundation of the disposal area and the other requirements for drainage control are met; and

745.330. Surface water runoff from areas adjacent to and above the fill is not allowed to flow onto the fill and is diverted into stabilized diversion channels designed to meet the requirements of R645-301-742.300 and to safely pass the runoff from a 100-year, 6-hour precipitation event.

745.400. Preexisting Benches. The Division may approve the disposal of excess spoil through placement on preexisting benches, provided that the requirements of R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-535.100, R645-301-535.112 through R645-301-535.130, R645-301-535.300 through R645-301-536.300, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400 and the requirements of R645-301-535.400 are met.

746. Coal Mine Waste.

746.100. General Requirements.

746.110. All coal mine waste will be placed in new or existing disposal areas within a permit area which are approved by the Division.

746.120. Coal mine waste will be placed in a controlled manner to minimize adverse effects of leachate and surface water runoff on surface and ground water quality and quantity.

746.200. Refuse Piles.

746.210. Refuse piles will meet the requirements of R645-301-512.230, R645-301-515.200, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-542.730, and R645-301-746.100 and the additional requirements of R645-301-210, R645-301-513.400, R645-301-514.200, R645-301-528.322, R645-301-536.900, R645-301-553.250, and R645-301-746.200 and the requirements of the MSHA, 30 CFR 77.214 and 77.215.

746.211. If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the design will include diversions and underdrains as necessary to control erosion, prevent water infiltration into the disposal facility and ensure stability.

746.212. Uncontrolled surface drainage may not be diverted over the outslope of the refuse pile. Runoff from areas above the refuse pile and runoff from the surface of the refuse pile will be diverted into stabilized diversion channels designed to meet the requirements of R645-301-742.300 to safely pass the runoff from a 100-year, 6-hour precipitation event. Runoff diverted from undisturbed areas need not be commingled with runoff from the surface of the refuse pile.

746.213. Underdrains will comply with the requirements of R645-301-745.122.

746.220. Surface Area Stabilization.

746.221. Slope protection will be provided to minimize surface erosion at the site. All disturbed areas, including diversion channels that are not riprapped or otherwise protected, will be revegetated upon completion of construction.

746.222. No permanent impoundments will be allowed on the completed refuse pile. Small depressions may be allowed by the Division if they are needed to retain moisture, minimize erosion,

create and enhance wildlife habitat, or assist revegetation, and if they are not incompatible with stability of the refuse pile.

746.300. Impounding structures. New and existing impounding structures constructed of coal mine waste or intended to impound coal mine waste will meet the requirements of R645-301-512.230, R645-301-515.200, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-542.730, and R645-301-746.100.

746.310. Coal mine waste will not be used for construction of impounding structures unless it has been demonstrated to the Division that the use of coal mine waste will not have a detrimental effect on downstream water quality or the environment due to acid seepage through the impounding structure. The potential impact of acid mine seepage through the impounding structure will be discussed in detail.

746.311. Each impounding structure constructed of coal mine waste or intended to impound coal mine waste will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-513.200, R645-301-514.310 through R645-301-514.330, R645-301-515.200, R645-301-533.100 through R645-301-533.500, R645-301-733.230, R645-301-733.240, R645-301-743.100, and R645-301-743.300. Such structures may not be retained permanently as part of the approved postmining land use.

746.312 Each impounding structure constructed of coal mine waste or intended to impound coal mine waste that meets the criteria of 30 CFR 77.216(a) will have sufficient spillway capacity to safely pass, adequate storage capacity to safely contain, or a combination of storage capacity and spillway capacity to safely control the probable maximum precipitation of a 6-hour precipitation event, or greater event as demonstrated to be needed by the Division.

746.320. Spillways and outlet works will be designed to provide adequate protection against erosion and corrosion. Inlets will be protected against blockage.

746.330. Drainage control. Runoff from areas above the disposal facility or runoff from the surface of the facility that may cause instability or erosion of the impounding structure will be diverted into stabilized diversion channels designed to meet the requirements of R645-301-742.300 and designed to safely pass the runoff from a 100-year, 6-hour design precipitation event.

746.340. Impounding structures constructed of or impounding coal mine waste will be designed and operated so that at least 90 percent of the water stored during the design precipitation event will be removed within a 10-day period following that event.

746.400. Return of Coal Processing Waste to Abandoned Underground Workings. Each permit application to conduct UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES will, if appropriate, include a plan of proposed methods for returning coal processing waste to abandoned underground workings as follows:

746.410. The plan will describe the source of the hydraulic transport mediums, method of dewatering the placed backfill, retainment of water underground, treatment of water if released to surface streams and the effect on the hydrologic regime;

746.420. The plan will describe each permanent monitoring well to be located in the backfilled areas, the stratum underlying

the mined coal and gradient from the backfilled area; and

746.430. The requirements of R645-301-513.300, R645-301-528.321, R645-301-536.700, R645-301-746.410 and R645-746.420 will also apply to pneumatic backfilling operations, except where the operations are exempted by the Division from requirements specifying hydrologic monitoring.

747. Disposal of Noncoal Mine Waste.

747.100. Noncoal mine waste, including but not limited to grease, lubricants, paints, flammable liquids, garbage, machinery, lumber and other combustible materials generated during coal mining and reclamation operations will be placed and stored in a controlled manner in a designated portion of the permit area or state-approved solid waste disposal area.

747.200. Placement and storage of noncoal mine waste within the permit area will ensure that leachate and surface runoff do not degrade surface or ground water.

747.300. Final disposal of noncoal mine waste within the permit area will ensure that leachate and drainage does not degrade surface or underground water.

748. Casing and Sealing of Wells. Each water well will be cased, sealed, or otherwise managed, as approved by the Division, to prevent acid or other toxic drainage from entering ground or surface water, to minimize disturbance to the hydrologic balance, and to ensure the safety of people, livestock, fish and wildlife, and machinery in the permit and adjacent area. If a water well is exposed by coal mining and reclamation operations, it will be permanently closed unless otherwise managed in a manner approved by the Division. Use of a drilled hole or borehole or monitoring well as a water well must comply with the provision of R645-301-731.100 through R645-301-731.522 and R645-301-731.800.

750. Performance Standards.

All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area and support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of R645-301 and R645-302. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, operations will be conducted to assure the protection or replacement of water rights in accordance with the terms and conditions of the approved permit and the performance standards of R645-301 and R645-302.

751. Water Quality Standards and Effluent Limitations. Discharges of water from areas disturbed by coal mining and reclamation operations will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the U.S. Environmental Protection Agency set forth in 40 CFR Part 434.

752. Sediment Control Measures. Sediment control measures must be located, maintained, constructed and reclaimed according to plans and designs given under R645-301-732, R645-301-742 and R645-301-760.

752.100. Siltation structures and diversions will be located, maintained, constructed and reclaimed according to plans

and designs given under R645-301-732, R645-301-742 and R645-301-763.

752.200. Road Drainage. Roads will be located, designed, constructed, reconstructed, used, maintained and reclaimed according to R645-301-732.400, R645-301-742.400 and R645-301-762 and to achieve the following:

752.210. Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;

752.220. Control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area;

752.230. Neither cause nor contribute to, directly or indirectly, the violation of effluent standards given under R645-301-751;

752.240. Minimize the diminution to or degradation of the quality or quantity of surface- and ground-water systems; and

752.250. Refrain from significantly altering the normal flow of water in streambeds or drainage channels.

753. Impoundments and Discharge Structures. Impoundments and discharge structures will be located, maintained, constructed and reclaimed to comply with R645-301-733, R645-301-734, R645-301-743, R645-301-745 and R645-301-760.

754. Disposal of Excess Spoil, Coal Mine Waste and Noncoal Mine Waste. Disposal areas for excess spoil, coal mine waste and noncoal mine waste will be located, maintained, constructed and reclaimed to comply with R645-301-735, R645-301-736, R645-301-745, R645-301-746, R645-301-747 and R645-301-760.

755. Casing and Sealing of Wells. All wells will be managed to comply with R645-301-748 and R645-301-765. Water monitoring wells will be managed on a temporary basis according to R645-301-738.

760. Reclamation.

761. General Requirements. Before abandoning a permit area or seeking bond release, the operator will ensure that all temporary structures are removed and reclaimed, and that all permanent sedimentation ponds, diversions, impoundments and treatment facilities meet the requirements of R645-301 and R645-302 for permanent structures, have been maintained properly and meet the requirements of the approved reclamation plan for permanent structures and impoundments. The operator will renovate such structures if necessary to meet the requirements of R645-301 and R645-302 and to conform to the approved reclamation plan.

762. Roads. A road not to be retained for use under an approved postmining land use will be reclaimed immediately after it is no longer needed for coal mining and reclamation operations, including:

762.100. Restoring the natural drainage patterns;

762.200. Reshaping all cut and fill slopes to be compatible with the postmining land use and to complement the drainage pattern of the surrounding terrain.

763. Siltation Structures.

763.100. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has

been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

763.200. When the siltation structure is removed, the land on which the siltation structure was located will be regraded and revegetated in accordance with the reclamation plan and R645-301-358, R645-301-356, and R645-301-357. Sedimentation ponds approved by the Division for retention as permanent impoundments may be exempted from this requirement.

764. Structure Removal. The application will include the timetable and plans to remove each structure, if appropriate.

765. Permanent Casing and Sealing of Wells. When no longer needed for monitoring or other use approved by the Division upon a finding of no adverse environmental or health and safety effects, or unless approved for transfer as a water well under R645-301-731.100 through R645-301-731.522 and R645-301-731.800, each well will be capped, sealed, backfilled, or otherwise properly managed, as required by the Division in accordance with R645-301-529.400, R645-301-551, R645-301-631.100, and R645-301-748. Permanent closure measures will be designed to prevent access to the mine workings by people, livestock, fish and wildlife, machinery and to keep acid or other toxic drainage from entering ground or surface waters.

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Tab 9

DRAFT

Guidelines for Preparation of a Cumulative Hydrologic Impact Assessment (CHIA)

December 1985

PREFACE

This volume is one of three that address the requirements of Public Law 95-87 (the Act) and its promulgated regulations related to the protection of the hydrologic balance on and adjacent to surface coal mines. This volume contains Guidelines for Preparation of a Cumulative Hydrologic Impact Assessment (CHIA). Another volume contains Guidelines for the Preparation of a Probable Hydrologic Consequences Determination (PHC). These guidance documents suggest processes and illustrations that applicants and regulatory authorities may use to prepare the required PHC and CHIA. A third volume contains appendices with supporting information for the PHC and CHIA volumes. In addition to the appendix volume, the PHC and CHIA volumes each include appendices specific to the respective document.

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PURPOSE AND SCOPE

The Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 et seq. (1982) (SMCRA) requires the regulatory authority, before issuing a permit to conduct surface coal mining and reclamation operations, to make an assessment of the probable cumulative impacts of all anticipated mining in the area to assure that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The Office of Surface Mining (OSM) has termed this assessment a "cumulative hydrologic impact assessment" (CHIA). Although SMCRA is very specific that such an assessment is a necessary part of the permitting process, it provides little in the way of guidance as to how these assessments are to be made. The development of this manual provides this guidance to regulatory authorities in the form of a procedure for making technically sound and legally defensible CHIA's.

This guidance document suggests a thought process which will lead the regulatory authority to recognize and address the critical issues of each assessment. More specifically, this document (1) outlines the statutory basis for developing CHIA's and describes the regulatory requirements for CHIA's, (2) provides a process for the development of an acceptable CHIA, and (3) suggests data sources and proven analytical procedures that may be used in the assessment. These suggestions and procedures should be considered guidelines and not standards. The regulatory authority is not required to use this material. This is an advisory document and should not be construed as being regulatory in any way. There are no limits or conditions specified except those contained in the Act itself and in the promulgated Federal regulations and approved State programs.

The CHIA is an assessment which distinct and separate from the determination of probable hydrologic consequences (PHC), although elements of the PHC can be used to support and develop the CHIA. The CHIA is the responsibility of the regulatory authority, whereas the applicant must provide the PHC determination with the permit application. The PHC determination addresses hydrologic conditions on the permit and adjacent areas; the CHIA considers impacts over the entire cumulative impact area (CIA). This guidance document primarily addresses the CHIA process but may refer to information presented in the PHC determinations of the individual operations. It is assumed that prior to starting the CHIA process, the regulatory authority will have reviewed the hydrologic content of the permit application and will have made a determination that the hydrologic information, the analyses, and the PHC statement in the application provide a complete and adequate evaluation of the hydrologic systems that will be affected by the proposed operation and clearly indicate the magnitude of those effects. If such a determination shows these items to be inadequate or if such a determination has not been made, the CHIA process should not be initiated until these items are provided.

This document is directed primarily to the regulatory authorities, who have the responsibility of completing a CHIA for each permit application. However, coal mine operators and interested members of the public may also find it useful for preparing and understanding permit applications. If each party involved in the permitting process understands what is required of the others, conflicts should

occur less frequently and be more easily resolved. It is intended that this document provide a common understanding of the CHIA process for all interested parties.

Because this document is intended for nationwide use, the process presented is intentionally nonspecific. It gives the regulatory authorities flexibility to administer the process within regulatory requirements and standards of the individual States. It emphasizes the general elements that should be considered in conducting a CHIA but allows the regulatory authority to choose the specific approaches and methods that will be most appropriate to a given State, region, or cumulative impact area. Therefore, the prudent regulatory authority will develop State-specific CHIA guidelines, using the process presented here as a framework. Such action would allow the regulatory authority to standardize parts of the process, establish appropriate exceptions to the process, and, in general, streamline the whole CHIA process, thus minimizing the total effort required for a given CHIA analysis.

DEFINITIONS

The following definitions will facilitate the understanding of this document. They are provided solely to aid the reader in understanding this guidance document and are not to be construed in any way as official OSM definitions. Other definitions may be found in OSM's Permanent Regulatory Program, 30 CFR 701.5 (appendix A.1).

Baseline hydrologic information.--Information which describes the physical and chemical characteristics of a hydrologic system and the hydrologic balance of an area prior to the imposition of a specific stress, such as a mining operation.

Hydrologically isolated operation.--A surface mining operation where hydrologic impacts are negligible or are dissipated before reaching points in the system where they are additive to hydrologic impacts of other surface mining operations.

Hydrologic concern.--An issue or potential issue relating to some element or aspect of the hydrologic system which may be adversely affected by surface mining activities. Each concern can be described using specific hydrologic parameters and changes in those parameters. Cumulative impact assessments can be focused initially upon hydrologic concerns identified through analysis of baseline information, historical data, etc.

Hydrologic impact.--Any measurable change in hydrologic parameters or conditions associated with a particular hydrologic system caused by surface and underground coal mining activities.

Hydrologic model.--An equation, set of algorithms, or written qualitative description of a phase of the hydrologic cycle. Most often, an equation that results from the use of correlation-regression analysis that relates a hydrologic parameter to physiographic and climatic factors. Also, a computer program that predicts hydrologic parameters as time-series,

such as streamflow or soil moisture, given meteorologic time-series input. For cumulative impacts of surface mining, the applicable phase of the hydrologic cycle is from precipitation on the land surface or snowmelt to the discharge point at a downstream location or flow in an aquifer.

Hydrologic parameter.--A particular physical or chemical quantity, property, factor, or characteristic used to describe hydrologic conditions.

Material damage to the hydrologic balance means, with respect to CHIA, the changes to the hydrologic balance caused by surface mining and reclamation operations to the extent that these changes would significantly affect present and potential uses as designated by the regulatory authority.

Water availability means that, along with there being a sufficient volume, the water is in an accessible location and it is of acceptable quality for the uses designated by the regulatory authority.

CHAPTER I

STATUTORY AND REGULATORY REQUIREMENTS FOR CUMULATIVE IMPACT ASSESSMENTS

The statutory requirements for CHIA's are found in Sections 507(b) and 510(b) of SMCRA. These sections which delineate the requirements that the regulatory authority and the permit applicants must meet, state, in pertinent part:

> Section 507(b) "The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things-- * * * (11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime, quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, That this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, That the permit shall not be approved until such information is available and is incorporated into the application" (emphasis in original).

> Sections 510(b) "No permit or revision application shall be approved unless the application affirmatively demonstrates and the regulatory authority finds in writing on the basis of the information set forth in the application or from information otherwise available which will be documented in the approval, and made available to the applicant, that * * * (3) the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance specified in Section 507(b) has been made by the regulatory authority and the proposed operation thereof has been designed to prevent material damage to the hydrologic balance outside the permit area;"

The requirements of Sections 507(b)(11) and 510(b)(3) of the Act have been implemented by the Permanent Regulatory Program at 30 CFR 701.5, 780.21, and 784.14. Section 701.5 defines "cumulative impact area," the name given the area referred to in Section 507(b)(11) as that area which must be included in the assessment of probable cumulative impacts. This definition of the CIA addresses the physical extent of the area and the meaning of the term "all anticipated mining" as used in Section 510(b)(3). According to the preamble, anticipated mining is meant to include "all operations which have a reasonable expectation of receiving regulatory approval to mine and for which there is sufficient mine development information available to allow adequate analyses" (48 Federal Register 43957, September 26, 1983).

Sections 780.21(g) and 784.14(f) of the regulations speak specifically to the scope of the CHIA. Section 780.21 addresses surface mining and 784.14 concerns underground mining. These sections both read as follows:

Cumulative hydrologic impact assessment.

(1) The regulatory authority shall provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area. The CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The regulatory authority may allow the applicant to submit data and analyses relevant to the CHIA with the permit application.

(2) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or an updated CHIA shall be required.

Sections 780.21(c) and 784.14(c) discuss the responsibilities of the regulatory authority and the applicant for the collection of hydrologic data needed for the CHIA. These sections provide:

Baseline cumulative impact area information.

(1) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface- and ground-water systems, as required by Paragraph 780.21(g) or 784.14(f), shall be provided to the regulatory authority if available from appropriate Federal or State agencies.

(2) If the information is not available from such agencies, then the applicant may gather and submit this information to the regulatory authority as part of the permit application.

(3) The permit shall not be approved until the necessary hydrologic and geologic information is available to the regulatory authority.

CHAPTER II

OVERVIEW OF THE CHIA PROCESS

This chapter presents an overview of the CHIA development process, along with the philosophy on which it is based, so that the user can immediately understand its full scope. In addition, brief statements of the functions of each of the process elements are presented. Detailed discussion of the various process elements is presented in later chapters.

PHILOSOPHY OF CHIA

With proper enforcement of surface mining regulations, the hydrologic impacts of individual mining operations will be minimized, though not eliminated entirely. These remaining or residual impacts, however small and individually insignificant, may, with the development of additional mines, accumulate to magnitudes that are significant and potentially damaging to the hydrologic balance. The cumulative hydrologic impact assessment, thus, is necessary to assure that such aggregate impacts will not be overlooked in the routine processing of individual permit applications. In effect, the CHIA is a safety net provision in the Act, and its overall objective is to require routine consideration of the aggregate impacts caused by the disruption of large areas (more than one individual permit area) due to surface mining operations.

The CHIA is a means of keeping the big picture of hydrologic impacts before the regulatory authority at all times, so that if the accumulated impacts reach potentially damaging magnitudes, they can be dealt with in a timely manner. Depending on the hydrologic setting, the potential for damage to the hydrologic system, and the evaluation of the significance of that damage through the application of material damage criteria established by the regulatory authority, the probable cumulative hydrologic impact assessment could result in the denial or delay of a mining permit. The regulatory authority may use the CHIA as a land use planning tool to balance current coal development in a region against probable future development. However, such use is not required (48 Federal Register 43973, September 26, 1983).

Because, through the CHIA process, the regulatory authority is continually reminded of the reality of cumulative impacts, it should not be necessary to completely analyze every facet of the hydrologic system. The process presented in this guidance document is based on the premise that the scope of the analysis can be reduced to those facets of the hydrologic system which are likely to affect the designated uses of water available from that system. At the start of an assessment, its scope should cover all possibilities. Thus, the scope of a CHIA should initially include a complete analysis of the ground- and surface-water systems in the CIA, from the standpoint of water quantity and quality. This initial scope can then be systematically and logically reduced to those concerns considered significant to maintaining the hydrologic balance of the area. The scope reduction procedures, which must be developed by the regulatory authority, are envisioned to often be qualitative in nature.

The procedures presented here are based on the understanding that hydrologic impact assessment is not a precise process. Because of the many uncertainties associated with hydrologic estimation, the predictions made under the process proposed herein, or under any similar process, must be considered as probable in nature rather than exact. Therefore, the regulatory authority must have the option of using professional judgment to make the final material damage determination. This should not detract from the significance of the process if the determination is based on the facts produced by a comprehensive analysis. Likewise, use of qualitative methods and techniques for the analysis is an acceptable option if the regulatory authority can show them to be adequate for the specific site situation.

OVERVIEW

A CHIA is a permit-specific assessment required by SMCRA and must be an integral part of the permit decision package. The CHIA should be included in the Technical Environmental Analysis (TEA) section of the decision package.

CHIA development is a process which consists of a logically and professionally documented evaluation of a defined set of elements. It basically involves the analysis of critical aspects of the hydrologic system within the cumulative impact area. Emphasis of the analysis is on predicting the type and magnitude of impacts to the hydrologic system attributable to the proposed operation in conjunction with existing operations and anticipated mining. Thus, during the CHIA process, the regulatory authority should (1) define the area to be studied, (2) describe the hydrologic system and determine baseline hydrologic resource values, (3) identify hydrologic resources likely to be affected, (4) develop standards for evaluating the impacts, (5) estimate the impacts of mining on the hydrologic resources, and (6) make a material damage determination and prepare a statement of findings. The regulatory authority should address these elements in a logical sequence based on good hydrologic practice.

Within the constraints of good hydrologic practice and those imposed by statutory and regulatory requirements, the regulatory authority has wide latitude to determine the exact manner in which individual elements will be evaluated. Thus, an assessment based on "professional judgment," or a rigorous analytical assessment may be used, as the situation requires. Also, some of the procedures and hydrologic concerns presented and discussed in this guidance document may not apply to every CHIA. They are offered as examples, and their use is in no way mandatory. The specific concerns, procedures, methods, and data needs may vary with each impact area, and the regulatory authority has complete latitude to use those that best apply to the particular conditions of each site. However, justification for the specific assumptions and decisions made by the professionals conducting the assessment must be included in the findings statement for use in the various review processes (including public review and the program oversight review). The justification of actions and methods should be considered an extremely important aspect of the CHIA process.

Each CHIA should be considered unique to a specific minesite or permit area. However, a totally new analysis is not necessary for each CHIA. It is acceptable to use portions of a previously prepared CHIA for the same area, provided that these portions do, in fact, describe the situation of the newly proposed operation. For

example, if the proposed permit area was included as a leasehold in a previous CHIA, then that previous CIA delineation may be an appropriate CIA for the CHIA of the newly proposed permit area. In addition, documentation of the procedures used to delineate this CIA should be transferable to the CHIA of the proposed mine with only minor modifications. Likewise, once material damage standards have been established for a specific area, they would be applicable, with little modification, to all future CHIA's in that area. Thus, even though a CHIA should be considered unique to each specific permit application, the actual assessment can draw heavily on the previously prepared CHIA's.

Figure II-1 illustrates the basic CHIA process that may be used by the regulatory authority. The letters in the element boxes are for reference only and do not imply a required process order. The process could be depicted in other, equally acceptable, sequences. The important factor is that the process considers the recommended elements in a logical and workable sequence.

The process illustrated in figure II-1 shows the interrelation of the elements to each other and to the process as a whole. The parallel arrangement of Elements A, B, and C is meant to suggest that these elements are highly interrelated and that their evaluation should take place concurrently and interactively. As a group, these three elements are evaluated first in the process because they provide an information base which forms the basis for selecting techniques and methodologies needed for impact prediction and material damage assessment. The sequential arrangement of Elements D through F indicates that completion of these elements is dependent on the prior evaluation of certain other elements. This should not be construed to mean that one element must be totally completed before the next is started. The feedback arrow suggests that the CIA delineation may need modification after the areal extent of the impacts has been evaluated.

Process Elements

Element A.--Element A addresses the delineation by the regulatory authority of the area for which the CHIA is being prepared. OSM refers to this area as the cumulative impact area (CIA) and defines it in the regulations (30 CFR 701.5) in terms of both a physical area and the type of operations located within the area that must be considered.

The proposed delineation process begins at a point downstream from the most downstream operation in the same river basin where the proposed operation is located. By procedures developed by the regulatory authority, operations spatially and hydrologically distant from the proposed operation are systematically tested to determine the significance of their impacts with respect to the proposed operation. In this way, the CIA is limited to operations whose hydrologic impacts are relevant to the CHIA being developed. The process may be iterative, with some evaluation of the impacts needed before the limits of the CIA can be finally delineated; thus, the feedback loop from Element E to Element A in figure II-1.

Element B.--Element B involves identification by the regulatory authority of hydrologic concerns specific to the CIA. This is a qualitative identification of the aspects of the hydrologic system most likely to be adversely affected by mining activity. By identifying hydrologic concerns peculiar to the CIA, the CHIA process

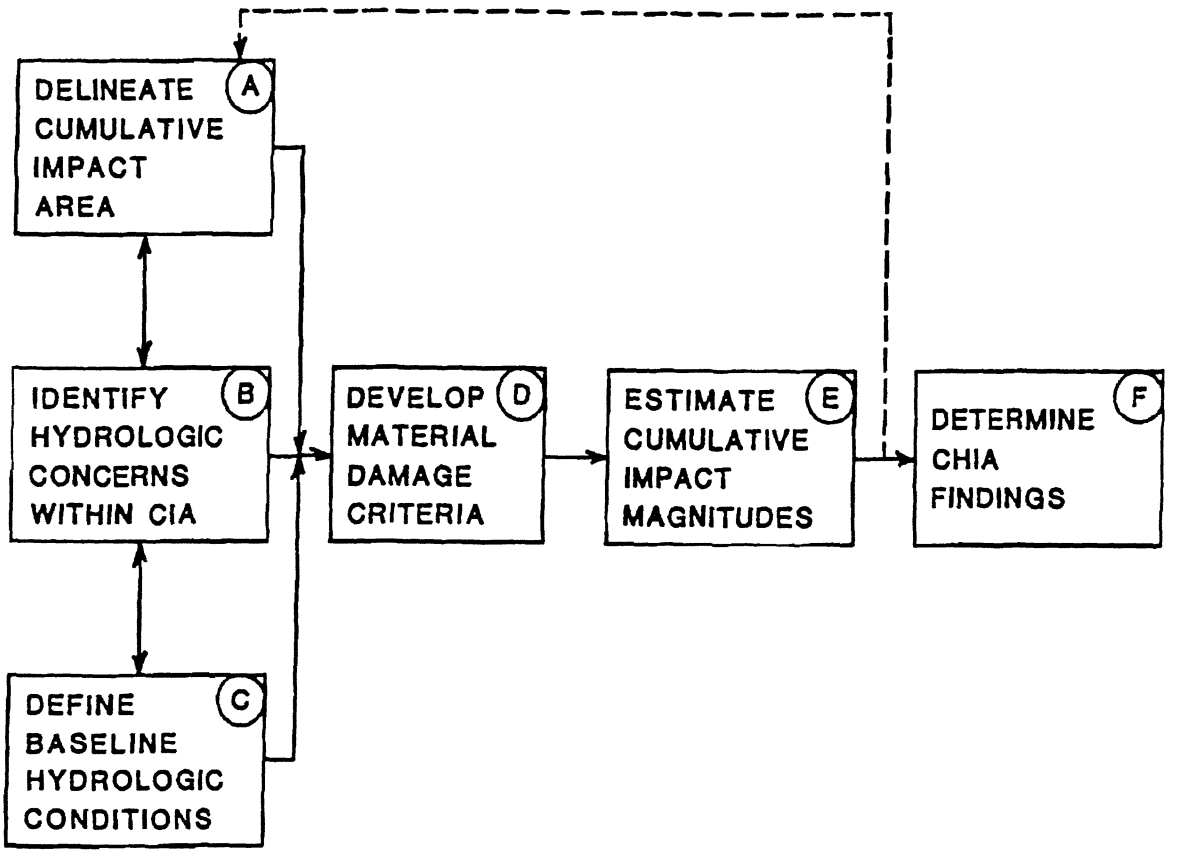

Figure II-1.--Flow diagram of basic CHIA process.

can be focused on these critical segments of the hydrologic system. The concerns can be identified from PHC data, as well as from other baseline data, historical data, or any source that raises valid questions about some aspect of the hydrology of the CIA. The specific parameters to be used to measure and evaluate the concerns, and the sites at which the concerns will be evaluated should also be identified. These parameters will be referred to as "indicator parameters" in the remainder of the guidance document. For example, a common concern associated with mining in the Western United States is increased salt concentration in the postmining ground-water supplies.

Element C.--Element C provides for the determination of baseline hydrologic conditions of the CIA. This determination should result in a description of the hydrologic system and how it functions. It should also provide the normal values of the indicator parameters at the beginning of mining. In effect, baseline conditions are indicators of the state of the hydrologic balance at the time of the analysis, and they provide reference points for evaluating the significance of future impacts (predicted values of indicator parameters) of mining.

Element D.--Under Element D, the regulatory authority establishes for the indicator parameters the threshold values beyond which material damage is likely to occur. It is here that the regulatory authority establishes what constitutes material damage for the CIA. Existing State and Federal water-quality standards should be used where applicable. Where standards are not already available, the regulatory authority will have to develop threshold values. These values normally will be in the form of maxima or minima, but, in some cases, rate-of-change limits (incremental limits) may be necessary. When, with increasing numbers of mines in the CIA, impact levels approach material damage threshold limits, the regulatory authority may wish to establish secondary limits (parameter value less than the material damage thresholds) to indicate when more rigorous and precise analysis procedures should be used.

Element E.--Element E involves estimating values that the indicator parameters are expected to attain as a result of coal mining. First, an analytical approach is adopted. If the combinational approach is used, specific analysis techniques should not be necessary because adequate impact assessments should already exist in the PHC's of the individual anticipated operations. In this case, the regulatory authority needs only to develop procedures by which the results of the individual PHC's can be rationally combined. If PHC's are not available for some of the "anticipated mining" operations, the regulatory authority must first develop PHC's or make equivalent analyses in order to use the combinational approach.

If the independent analysis approach is used, then specific techniques are necessary. Technique selection depends on many factors, but a primary consideration should be that the technique adequately account for the dominant physical conditions that characterize the subject hydrologic system. The selected techniques are applied to the total CIA using data assembled at Element C. The approach and techniques selected are extremely important to the outcome of the CHIA process and should be given careful consideration.

Element F.--The regulatory authority's final task in the CHIA process (Element F) is to determine whether the hydrologic assessment of the CIA (Elements A through E) indicates that the addition of the impacts of the proposed operation to those of the other anticipated mining may cause material damage to the hydrologic balance outside the permit area and to write a statement of these findings with all supporting evidence and rationale. The determination is the main objective of the whole CHIA process. The supporting evidence and rationale validate the determination.

The determination may be based on quantitative comparisons and/or on qualitative evaluations. Quantitative comparisons should be made whenever possible, but they need not be the sole basis for the determination. The regulatory authority has the flexibility of using qualitative factors along with quantitative comparisons to make final material damage determinations. Regardless of whether the determination is qualitative or quantitative, the rationale for the decisions must always be clearly stated.

The written statement of findings with supporting evidence and rationale should describe the actions taken to complete each of the process elements, with emphasis on justification for these specific actions or decisions. As a matter of expedience, this writing is suggested to be considered a part of each of the other elements, with the appropriate sections being completed as these elements are processed. In this way, the bulk of the writing will be completed when the analysis is completed. Then, in Element F, the statement would require only finalization. A suggested form and content for this document is given in Appendix A.

Tab 10

2011 WL 11287
Only the Westlaw citation is currently available.
United States District Court, S.D. West Virginia.

OHIO RIVER VALLEY ENVIRONMENTAL COALITION, INC., and West Virginia Highlands Conservancy, Inc., Plaintiffs,
v.
Kenneth SALAZAR, Secretary of the Interior, Defendant.

Civil Action No. 3:09-0149. Jan. 3, 2011.

Attorneys and Law Firms

Derek O. Teaney, Joseph Mark Lovett, Appalachian Center for the Economy & the Environment, Lewisburg, WV, Walton D. Morris, Jr., Charlottesville, VA, for Plaintiffs.

Ruth Ann Storey, U.S. Department of Justice, General Litigation Section, Washington, DC, for Defendant.

Opinion

MEMORANDUM OPINION AND ORDER

ROBERT C. CHAMBERS, District Judge.

*1 Pending before the Court is Plaintiffs' Motion for Summary Judgment (Doc. 45), Intervenor West Virginia Department of Environmental Protection's Motion for Summary Judgment (Doc. 53), Intervenor West Virginia Coal Association's Cross-Motion for Summary Judgment (Doc. 55), and Defendant's Cross-Motion for Summary Judgment (Doc. 56). All issues have been fully briefed, and are ripe for adjudication. For the following reasons, Plaintiffs' motion is **DENIED** and Defendant and Intervenors' motions are **GRANTED.**

I. Background

A. *Statutory Framework*

At issue is West Virginia's statutory and regulatory program under the Surface Mining Control and Reclamation Act of 1977, 30U.S.C. §§ 1201-1328 ("SMCRA" or "the Act"). Subject to the approval of the Secretary of the Interior ("Secretary") through the Office of Surface Mining ("OSM"), a state may assume jurisdiction for a program regulating surface mining operations. 30 U.S.C. § 1211(c)(1). Approval or disapproval of a state program must comply with the requirements of § 1253 and the regulations promulgated pursuant to the Act. 30 U.S.C. § 1253, 30 C.F.R. § 732.15. Once approved, any amendments to the program are subject to the same approval process. 30 C.F.R. § 732.17(h)(10). Among these requirements, amendments to a state's program must be "in accordance with the provisions of the Act and consistent with the requirements of the Chapter." 30 C.F.R. 732.15(a). "Consistent with" and "in accordance with" are further defined:

> Consistent with and in accordance with mean:
>
> (a) With regard to the Act, the State laws and regulations are no less stringent than, meet the minimum requirements of and include all applicable provisions of the Act.
>
> (b) With regard to the Secretary's regulations, the State laws and regulations are no less effective than the Secretary's regulations in meeting the requirements of the Act.

30 C.F.R. § 730.5. Therefore, at a minimum, in order to comply with SMCRA and its corresponding regulations, a state program's statutes and regulations must be no less stringent than SMCRA and no less effective than the federal regulations. In addition to these substantive requirements, there are procedural requirements for the submission and approval of amendments to state programs. OSM must provide public notice of the amendment, allow for a public comment period, and provide notice of any public hearings held. 30 C.F.R. 732.17(h)(2).

The focus of this case is the requirement for a cumulative hydrologic impact assessment ("CHIA"). When applying for a surface mining permit, the applicant must determine the probable hydrologic consequences of the proposed operations, both on the mine site and on the surrounding area. 30 C.F.R. § 780.21(f). This determination is used by the regulatory agency to conduct a CHIA on the 'cumulative impact area" in order to ascertain "whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area." 30 C.F.R. § 780.21(g)(1). West Virginia's program under the SMCRA was initially approved on January 21, 1981. 46 Fed.Reg. 5915. Since then, several amendments have been submitted and approved. *Id.* The most recent of these, submitted on March 22, 2007, is at issue in this case.

B. *West Virginia's Program Amendments*

*2 The Secretary approved West Virginia's proposed amendments to its program, deleting its definition of "cumulative impact" and adding a definition for 'material damage to the hydrologic balance outside the permit areas." There are no corresponding federal definitions for either of these terms AR 216 The definition of "cumulative impact" deleted by the amendment was

> Cumulative impact means the hydrologic impact that results from the cumulation of flows from all coal mining sites to common channels or aquifers in a cumulative impact area Individual mines within a given cumulative impact area may be in full compliance with effluent standards and all other regulatory requirements, but as a result of the co-mingling of their off-site flows, there is a cumulative impact The Act does not prohibit cumulative impacts but does emphasize that they be minimized When the magnitude of cumulative impacts exceeds threshold limits or ranges as predetermined by the Division, they constitute material damage

AR 32 The amendments also added the following definition for "material damage to the hydrologic balance outside the permit area"

> Material damage to the hydrologic balance outside the permit areas means any long term or permanent change in the hydrologic balance caused by surface mining operation(s) which has a significant adverse impact on the capability of the affected water resource(s) to support existing conditions and uses

AR 32-33

C. *Procedural Background*

The West Virginia amendments have been considered by this Court before On May 2, 2001, West Virginia Department of Environmental Protection ("WVDEP") initially submitted proposed amendments to the West Virginia program pursuant to the SMCRA AR 215 These were approved by the OSM on December 1, 2003 *Id* Ultimately, this Court vacated and remanded the amendments on September 30, 2005, finding that the requirements of the Administrative Procedure Act ("APA") had not been complied with *Ohio River Valley Envtl Coal Inc v Norton* 2005 WL 2428159 (S D W Va Sept 30, 2005) Specifically, this Court found that the Secretary failed to provide a reasoned analysis for the basis of the decision that the amendments were no less effective than the federal regulations *Norton* 2005 WL 2428159 at *3 This was affirmed by the Fourth Circuit *Ohio River Valley Envtl Coal Inc v Kempthorne* 473 F 3d 94 (4th Cir 2006) The Fourth Circuit emphasized the obligation of the OSM to "to find not only that the amended program contains counterparts to all federal regulations, but also that it is no less stringent than SMCRA and no less effective than the federal regulations in meeting SMCRA's requirements" *Id* at 103

Following these court decisions, West Virginia resubmitted the same amendments to the Secretary of the Interior on March 22, 2007 AR 216 West Virginia included an explanatory letter, particularly focusing on the question of whether the proposed amendments were as stringent as their federal counterpart AR 31-43 The Secretary provided public notice of receipt in the Federal Register on May 17, 2007, and invited public comment through June 18,2007 AR216 The OSM approved the amendments on December 24, 2008 AR 215 Plaintiffs filed this action on February 18, 2009, challenging the Secretary's approval of the amendments as arbitrary and capricious, and as lacking an adequate explanation of the basis for the approval *Compl* ¶ 59, Doc 1 Plaintiffs seek retention of the "cumulative impact" definition, and to have the "material damage" definition vacated *Id* ¶ C

II. Legal Standards

A. *Summary Judgment Standard*

*3 To obtain summary judgment, the moving party must show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law *Fed R Civ P* 56(a) In considering a motion for summary judgment, the Court will not 'weigh the evidence and determine the truth of the matter[ ]" *Anderson v Liberty Lobby Inc* 477 U S 242, 249 (1986) Instead, the Court will draw any permissible inference from the underlying facts in the light most favorable to the nonmoving party *Matsushita Elec Indus Co Ltd v Zenith Radio Corp* 475 U S 574, 587-88 (1986)

Although the Court will view all underlying facts and inferences in the light most favorable to the nonmoving party, the nonmoving party nonetheless must offer some "concrete evidence from which a reasonable juror could return a verdict in his [or her] favor[ ]" *Anderson* 477 U S at 256 Summary judgment is appropriate when the nonmoving party has the

burden of proof on an essential element of his or her case and does not make, after adequate time for discovery, a showing sufficient to establish that element *Celotex Corp v Catrett* 477 U S 317, 322-23 (1986) The nonmoving party must satisfy this burden of proof by offering more than a mere "scintilla of evidence" in support of his or her position *Anderson* 477 U S at 252

B. *Judicial Review Standard*

Federal administrative agencies are subject to the provisions of the Administrative Procedure Act, which establishes the scope of judicial review of challenged agency actions The Act instructs a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law " 5 U S C § 706(2)(A) Because of their expertise in their particular fields, a presumption of validity attaches to an agency's actions *Citizens to Preserve Overton Park Inc v Volpe* 401 U S 402, 415 (1971) (overruled on other grounds by *Califano v Sanders* 430 U S 99, 105 (1977)) As a result, the "ultimate standard of review is a narrow one " *Id* at 416 In applying this standard, a reviewing court 'must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment " *Id* The court also considers whether the agency articulated a "rational connection between the facts found and the choice made " *Burlington Truck Lines v United States* 371 U S 156, 168 (1962) The connection must be established even where, as here, an agency is rescinding a rule it was not originally required to enact The Supreme Court has held that 'an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance " *Motor Vehicle Mfrs Ass'n of U S Inc v State Farm Mut Auto Ins Co* 463 U S 29, 42 (1983) This reasoned analysis must be provided by the agency itself at the time of the action, as "courts may not accept appellate counsel's *post hoc* rationalizations for agency action " *Id* at 50 If the court finds the agency has established this rational connection, the action must be upheld even if the court disagrees with the agency's decision "A court is not empowered to substitute its judgment for that of the agency " *Bowman Transp Inc v Arkansas Best Freight Sys Inc* 419 U S 281 285 (1974) (citing *Overton Park* 401 U S at 416) The final inquiry is whether the agency followed the required procedures *Overton Park* 401 U S at 417 Here, that inquiry incorporates an analysis of whether the approved amendments are no less stringent than the SMCRA and no less effective than the federal regulations If the Secretary demonstrated a "clear error of judgment" in approving amendments that did not comply with this requirement, the Court must find his action unlawful *Overton Park* 401 U S at 416

III. Discussion

**4* Plaintiffs argue that the Secretary's approval of the amendments violates the SMCRA, and, therefore, was arbitrary and capricious Plaintiffs rely on § 1292(a)(3) of the Act, which states "Nothing in [the SMCRA] shall be construed as superseding, amending, modifying, or repealing" the Clean Water Act ("CWA") "or with any rule or regulation promulgated thereunder " 30 U S C § 1292(a)(3) Plaintiffs contend that the amendments contravene the CWA in two ways First, the material damage definition only cites existing uses of potentially affected water resources, but not designated uses *Pls ' Mem in Supp Pls ' Mot Summ J* 2, Doc 46 Second, the amendment excludes those violations of water quality standards that are not "long term" or "permanent " *Id* at 7 In sum, Plaintiffs argue, because the Secretary and state regulators may not construe the SMCRA to supercede the CWA and its regulations, they "must use applicable EPA-approved State water quality standards as material damage criteria in conducting CHIAs " *Id* at 9 The Court will first discuss Plaintiffs' contention that the material damage definition does not incorporate designated uses under the water quality standards, and then turn to Plaintiffs' broader argument that the amendments violate § 1292(a)(3) As there are no material facts at issue, the Court finds that summary judgment is proper in this case

A. *Secretary's Finding that the Material Damage Definition Incorporates Designated Uses Is Not a Clear Error of Judgment*

Plaintiffs' assertion that the new definition of material damage does not include designated uses is based on the phrase "capability of the affected water resource(s) to support *existing conditions and uses* " AR 33 (emphasis added) In its explanatory letter, West Virginia states that this phrase "effectively requires the State to consider the water quality standards it has promulgated pursuant to § 303(a) of the federal Clean Water Act as part of the material damage inquiry under surface mining law " AR 36 In those regulations, West Virginia differentiates between designated and existing uses in its definitions section

> 2 3 "Designated uses" are those uses specified in water quality standards for each water body or segment whether or not they are being attained (See sections 6 2-6 6, herein)
>
> * * *
>
> 2 5 "Existing uses" are those uses actually attained in a water body on or after November 28, 1975, whether or not they are included in the water quality standards

W Va Code St R § 47-2-2 The term "water quality standards", however, is defined as "the combination of water uses to be protected and the water quality criteria to be maintained by these rules " W Va Code St R § 47-2-2 21 Water quality criteria is defined as the "levels of parameters or stream conditions that are required to be maintained by these regulations Criteria may be expressed as a constituent concentration, levels, or narrative statement, representing a quality of water that supports a *designated use or uses* " W Va Code St R § 47 2 2 20 (emphasis added)

*5 West Virginia has represented that the SMCRA program amendment does require the state to consider these standards and, therefore, designated uses of water resources will be considered in determining whether material damage to the hydrologic balance will occur Accordingly, in its explanatory letter, West Virginia asserted the following

> If upon review of a permit application and assessment of the probable cumulative impact of all anticipated mining in the cumulative impact area on the hydrologic balance, the DEP is able to determine that the proposed operation has been designed so as to consistently comply with the water quality standards that protect the uses of the water into which discharges from the operation will flow, the DEP will make a finding that the proposed operation has been designed so as to prevent material damage to the hydrologic balance outside the permit area

AR 37 OSM, in its explanation of the basis for its approval of the amendments, relied on this representation The question is whether the Secretary demonstrated a clear error of judgment in finding that West Virginia's assertion that it would consider the water quality standards sufficient for approval of the material damage definition

As there is no federal counterpart to the "material damage" definition, OSM identified the standard to determine whether the definition was no less stringent than the SMCRA and no less effective than the federal regulations as follows "[W]hether the definition proposed by West Virginia limits the reach of material damage in a way that reduces the effectiveness of its program so that it would be less effective than Federal rules in achieving the purposes of SMCRA " AR 219 In its analysis of the phrase "support existing conditions and uses" in the material damage definition, the OSM relied upon the representation of West Virginia in its explanatory letter Building on its water quality standards regulatory framework, West Virginia asserted that

> under the proposed definition, in order to assure that mining will not result in a long term or permanent change in the hydrologic balance which has a significant adverse impact on the capability of a receiving stream to support its uses, a proposed mining operation must be designed so as to consistently comply with the water quality standards for the designated uses for the receiving stream

AR 220 OSM determined that, even though the definition does not explicitly incorporate designated uses, as a practical matter, application of the definition will utilize these criteria because protected uses under the water quality standards include designated uses In particular, OSM found that "[b]y including its Water Quality Standards with the amendment, we understand that West Virginia intends to apply the requirements set forth when determining when material damage to the hydrologic balance has occurred " *Id*

OSM also found that the connection of the material damage definition to the water quality standards was "not inconsistent" with the link between the federal water monitoring requirements under the SMCRA regulations, 30 C F R §§ 780 21 and 784 14, and detection of material damage AR 220 These regulations require that "current and approved postmining land use" should be considered in developing criteria for monitoring surface and ground water, which is used to determine whether or not material damage is occurring AR 217, 220 To OSM, the logic behind tying the monitoring requirements to postmining land use is akin to the logic of tying the material damage definition to existing water uses This link is strengthened by West Virginia's explanation of how the definition is to be applied, "since water quality standards established under the Clean Water Act are linked to both existing and designated uses ' AR 220 Further, as the water quality standards do not apply to surface water quantity or ground water quality or quantity, OSM noted that the material damage definition must allow room for the development of additional criteria to consider in determining material damage OSM concluded that the definition "does not limit West Virginia's authority or obligation to do so "

Id On the basis of this conclusion and its reliance on West Virginia's incorporation of its water quality standards into the definition, OSM concluded that the West Virginia definition does not "limit[ ] the reach of material damage in a way that reduces the effectiveness of its program so that it would be less effective than Federal rules in achieving the purposes of SMCRA " AR 219-20

*6 The Environmental Protection Agency ("EPA") in its concurrence expressed concern that the "amendments may be subject to interpretations that would be inconsistent with the CWA " AR 208 The agency, like the plaintiffs, emphasized that "water quality standards require protection of *designated uses* as well as existing uses " *Id* It nonetheless acquiesced to the amendments as, under § 1292 of SMCRA, the "amendments must be construed and implemented consistent with the CWA, NPDES regulations, and other relevant environmental statutes " AR 209 OSM expressed similar concerns In its findings on the effect of adding the material damage definition, the OSM stated that its approval was "based upon West Virginia implementing this new definition consistent with its explanation provided with the proposed amendment Should we later find that this definition is not being implemented in a manner consistent [with the explanatory letter], OSM may revisit this finding " AR 220

This Court shares these concerns Nevertheless, in reaching the decision to reject Plaintiffs' argument, the Court keeps in mind the standard of review it must apply in reviewing OSM's approval of the amendments In light of the foregoing basis for its finding that the definition is no less stringent than the SMCRA and no less effective than the federal regulations, OSM's approval-conditioned on West Virginia's implementation of the material damage definition in line with its water quality standards-is based on a "rational connection between the facts found and the choice made " *Burlington Truck Lines* 371 U S at 164 Accordingly, the Court finds there was no clear error of judgment in OSM's findings on this issue [1]

B. *The Amendments Do Not Violate § 1292 of the SMCRA*

Plaintiffs argue that pursuant to § 1292(a)(3) of the SMCRA, the CHIA must incorporate water quality standards under the CWA as material damage criteria Plaintiffs cite *In re Surface Mining Regulation Litigation* 627 F 2d 1346 (D C Cir 1980), to support their argument In that case, interim regulations promulgated under the Act by the Secretary were subject to challenges by numerous parties *In re Surface Mining Regulation Litigation* 627 F 2d at 1350 Among these were challenges to the interim regulations establishing effluent limitations and water quality standards for surface and underground mining *Id* at 1366 The plaintiffs argued that these provisions "substantially conform[ed] to Environmental Protection Agency (EPA) practice under the Federal Water Pollution Control Act but omit[ted] three 'vital' elements of the EPA's regulatory framework" and, therefore, did not comply with § 1292(a)(3) *Id* The D C Circuit agreed It found that "where the Secretary's regulation of surface coal mining's hydrologic impact overlaps EPA's, the Act expressly directs that the Federal Water Pollution Control Act and its regulatory framework are to control so as to afford consistent effluent standards nationwide " *Id* at 1367

*7 Here, Plaintiffs assert that this conclusion supports their argument that the Secretary erred in granting approval By failing to incorporate impacts on designated uses in the definition of material damage, Plaintiffs argue, West Virginia's program amendments conflict with the broader CWA framework by not including the "numeric criteria designed to protect designated uses of a water resource that are not existing uses " *Pls ' Mem in Supp Pls ' Mot Summ J* 11, Doc 46 In addition, Plaintiffs note, the inclusion of "long term" and "permanent" in the material damage definition incorporates a frequency or duration component, in contravention of the CWA regulatory framework *Id* at 11-12 Lastly, Plaintiffs argue that the amendments do not comply with CWA TMDL requirements, and do not consider the impact of proposed mining operations on West Virginia's "303(d)" list of impaired waters *Id* at 12-13

The Court finds that the plaintiffs' application of the principle of *In re Surface Mining Litigation* to the West Virginia program amendments conflates the SMCRA and the CWA In the D C Circuit case, the challenged regulations were effluent limitations, which directly overlapped with the EPA's regulatory framework under the CWA In contrast, at issue here is the definition of material damage used in the CHIA requirement under the SMCRA This is a permitting process completely separate from the NPDES permitting process under the CWA If an SMCRA permit is granted because material damage is not likely to result from the proposed mining operation, an NPDES permit could still be denied if the proposed action may result in violations of the water quality standards *Memo in Supp Fed Def's Cross-Mot Summ J & Opp'n to Pls ' Mot Summ J* 12, Doc 58 A finding of no material damage will not insulate a permittee from a CWA NPDES violation Furthermore, the phrase defined is *material* damage to the hydrologic balance outside the permit areas The terms "long term", "permanent", and

"significant adverse impact" are all reasonable interpretations of the term material damage. In its analysis of the inclusion of these words in the definition, OSM concluded they give "reasonable meaning to 'material' damage." AR 220. It further concluded that where an individual event has an

> enormous magnitude and impact that would certainly qualify as material damage to the hydrologic balance outside the permit area, there are numerous performance standards that could be cited in enforcement actions in such cases to mandate corrective measures under approved State programs. Further, OSM does not view the proposed State definition as limiting West Virginia's ability to cite the State counterpart (CSR 38-2-14.5) to 30 CFR 816.41(a) and 817.41(a) for causing material damage to the hydrologic balance outside the permit area in such cases.

Id. Again, the Court finds OSM's reasoning for its approval of the amendments to be a "rational connection between the facts found and the choice made." *Burlington Truck Lines,* 371 U.S. at 164. In contrast, Plaintiffs' attempt to have every violation of water quality standards, no matter how temporary or minor, qualify as material damage impermissibly conflates the requirements of the CWA with what is, ostensibly, a design tool for the SMCRA.

IV. Conclusion

8* For the approved amendments to be vacated, the alterations to West Virginia's program must be shown to be less stringent than the SMCRA and less effective than the federal regulations or that the Secretary's decision to approve the amendments was a clear error in judgment. Plaintiffs have not met this burden. West Virginia's material damage definition does not supercede, amend, modify, or repeal the Clean Water Act. The OSM has provided an adequate basis for its approval, and this Court, in spite of any reservations it may have regarding the amendments, must concur. The Court **FINDS that the Secretary, in its explanation for approving the West Virginia amendments, made a "rational connection between the facts found and the choice made." *Burlington Truck Lines,* 371 U.S. at 164. Therefore, Plaintiffs' motion for summary judgment is **DENIED** and Defendant's and Intervenors' motions are **GRANTED.**

The Court **DIRECTS** the Clerk to send a copy of this written Opinion and Order to counsel of record and any unrepresented parties.

Footnotes

1 In addition, the phrase contested by the Plaintiffs is "existing *conditions* and uses." The parties in their briefing and West Virginia and OSM in their documentation on the amendments focus on the significance of the word "uses." This Court also finds significance in the term "existing conditions." The term, unlike uses, does not have a corresponding definition to be incorporated from the state water quality standards. Neither OSM nor the State address the import of the phrase to the material damage definition; however, in their respective explanations for approval of the amendments, both entities state that the word "material" should be given its plain meaning. Following a similar reasoning, to the Court, "existing conditions" means exactly what it says. Existing conditions are the conditions of a receiving water at the time of a CHIA analysis. Any application of the amended material damage definition must take into consideration any affect a proposed mining project will have on an existing condition of a receiving stream. This implies that, even where an existing use is not adversely affected, an existing condition could be.

Tab 11

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Parts 700, 701, 785, 816, 817, and 827

Surface Coal Mining and Reclamation Operations, Permanent Regulatory Program: Support Facilities, Other Transportation Facilities, Utility Installations, and Coal Processing Plants

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Proposed rule.

SUMMARY: The Office of Surface Mining (OSM) proposes to modify regulations applicable to support facilities and utility installations, other transportation facilities, and coal processing plants. The revised rules are proposed in order to reduce the burden of existing regulations and minimize duplication of standards applicable to these facilities. This proposed rule would (1) establish a single set of regulations applicable to all coal processing plants; (2) combine rules applicable to support facilities, transportation facilities, and utility installations; (3) clarify the applicability of the permanent program regulations to support facilities.

DATES: Written comments: Accepted until further notice. See "Supplementary Information."

Public hearings: Held on request only, on August 5, 1982, at 9:00 a.m. (local)

Public meetings: Scheduled on request only. See Supplementary Information for more detail.

ADDRESSES: Written comments: *Hand-deliver* to the office of Surface Mining, U.S. Department of the Interior, Administrative Record (TSR 14.33), Room 5315, 1100 L Street, NW., Washington, D.C.; or *mail* to the Office of Surface Mining, U.S. Department of the Interior, *Administrative Record* (TSR 14.33), Room 5315L, 1951 Constitution Avenue, NW., Washington, DC 20240.

Public hearings: Washington, D.C.—Department of the Interior Auditorium, 18th and C Streets, NW.; Pittsburgh, Pa.—William S. Moorehead Federal Building, Room 2212, 1000 Liberty Avenue; and Denver, Colo.—Brooks Tower, 2d Floor Conference Room, 1020 15th Street.

Public meetings: OSM offices in Washington, D.C.; Pittsburgh, Pa.; and Denver, Colo.

FOR FURTHER INFORMATION CONTACT: *Public hearings and information:* Arthur Anderson, Division of Technical Assistance, Office of Surface Mining, U.S. Department of the Interior, 1951 Constitution Avenue, NW., Washington, DC 20240; 202-343-5954.

Public meetings: Jose del Rio, 202-343-4022.

SUPPLEMENTARY INFORMATION:

I. Public Commenting Procedures.
II. Discussion of Proposed Rules.
III. Procedural Matters.

I. Public Commenting Procedures

Written Comments

Written comments should be specific, pertain only to the issues proposed in this rulemaking, and include explanations in support of the commenter's recommendations. Commenters are requested to submit five copies of their comments (see "Addresses"). Comments received at locations other than Washington, D.C., will not necessarily be considered or be included in the Administrative Record for the final rulemaking. The comment period will remain open until the close of the comment period on the draft environmental impact statement that will consider this proposed rule.

Public Hearings

Persons wishing to comment at the public hearings should contact the person listed under "For Further Information Contact" by the close of business *three working days* before the date of the hearing. If no one requests the opportunity to comment at a public hearing at a particular location by that date, the hearing will not be held. If only one person requests the opportunity to comment, a public meeting, rather than a public hearing, may be held and the results of the meeting included in the Administrative Record.

Filing of a written statement at the time of the hearing is requested and will greatly assist the transcriber. Submission of written statements in advance of the hearing will allow OSM officials to prepare appropriate questions.

Public hearings will continue on the specified date until all persons scheduled to comment have been heard. Persons in the audience who have not been scheduled to comment and wish to do so will be heard following those scheduled. The hearing will end after all persons scheduled to comment, and persons present in the audience who wish to comment, have been heard.

Public Meetings

Persons wishing to meet with OSM representatives to discuss these proposed rules may request a meeting at any of the OSM offices listed in "Addresses" by contacting the person under "For Further Information Contact."

All such meetings are open to the public and, if possible, notices of meetings will be posted in advance in the Administrative Record room (1100 L Street). A written summary of each public meeting will be made a part of the Administrative Record.

II. Discussion of Proposed Rules

1. *Authority.* The authority for these sections is found in sections 102, 201, 501, 503, 504, 507, 508, 510, 515, 517, and 701 of the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 *et seq.* (the Act).

2. *General.* On March 13, 1979, OSM promulgated the permanent program regulations as required by section 701 of the Act. In Subchapter K, §§ 816.180-181 and 817.180-181 of the permanent program regulations pertain to the following three areas: transportation facilities other than roads, support facilities, and utility installations. Part 827 of the regulations pertains to coal processing plants and support facilities not located at or near the minesite or not within the permit area for a mine.

3. *Proposed Change to Definition in § 70.5.* OSM proposes to revise the permanent regulatory program definition of surface coal mining operations to clarify the regulation of coal load-out facilities, crushing facilities, and coal processing plants located both "at or near the mine site" and "offsite." The proposed rule addresses a continuing controversy surrounding OSM's regulations and their applicability to certain facilities not located "at or near the mine site." The controversy revolves around the interpretation of the term "surface coal mining operations" contained in section 701(28) of the Act.

Some of the issues raised in this proposed rule were also addressed in a prior rulemaking; see 45 FR 42333-42335 (June 24, 1980). This rulemaking is intended to readdress these issues and to provide interested persons an opportunity to comment on them in the context of OSM's overall regulatory reform effort.

The proposed rule would also amend the definition of surface coal mining and reclamation operations, which refers to surface "coal mining operations."

Thus, surface coal mining and reclamation operations would address major issues with respect to the regulation of coal processing plants and coal loading facilities not located "at or near" the mine site.

Section 701(28) of the Act defines "surface coal mining operations" as follows:

Existing §§ 780.21 (a) and (b) and 784.14 (a), (b), and (d), which described the requirements for the hydrologic balance portion of the reclamation plan, would be replaced by proposed §§ 780.21 (h) and 784.14(h). Although structured differently from the existing rule, all current requirements are contained in the proposed wording and relate the reclamation plan requirements directly to the proposed performance standards. OSM feels that the new wording would allow the operator greater flexibility and encourages innovative reclamation methodologies. The proposed sections emphasize preparation of an environmentally sound reclamation plan consistent with local hydrologic conditions and responsive to hydrologic problems detailed in the PHC determination.

The rules would require that the applicant furnish specific information on measures for controlling acid and toxic drainage, suspended solids, surface drainage, and for maintaining and removing water-treatment facilities. OSM intends that the reclamation plan be closely keyed to the potential problems identified during the preparation of the PHC determination. If, for example, the analysis of baseline information or the PHC determination indicates that acid drainage may be a problem, then the reclamation plan should address that issue.

Proposed §§ 780.21(i) and 784.14(i) embody the intent, i.e., protection of onsite and offsite water resources, of existing §§ 780.21 (a) and (b) and 784.14 (a), (b), and (d). The proposed sections differ from the existing rules in that they do not specify data requirements or plans as part of the reclamation plan. OSM believes that the need for such information is not specifically mandated by section 508(a)(13) of the Act and that the need for such information would be evident, and therefore required, through baseline or PHC data analyses, as a result of site-specific conditions or as a requirement of the regulatory authority. Rather than repeat hydrologic information requirements, as was previously done, OSM has chosen to propose a more general direction to the applicant.

Hydrologic monitoring—§§ 780.21 (j) and (k) and 784.14 (j) and (k).

Proposed §§ 780.21 (j) and (k) and 784.14 (j) and (k) are a combination of the monitoring requirements of existing §§ 816.52 and 817.52 and new requirements proposed herein. In general, hydrologic monitoring plans should be developed and implemented in such a fashion that adverse impacts due to mining would be distinguishable from those due to other causes. OSM recognizes that there are many masking conditions in natural surface- and ground-water systems that make it difficult to isolate causal factors. For this reason, the monitoring program would be closely keyed to the analysis of the baseline information and preexisting conditions.

Ground-water monitoring.

Proposed §§ 780.21(j) and 784.14(j) would require that a ground-water monitoring plan be submitted with the permit application only if required by the regulatory authority or if the PHC determination indicated that adverse impacts may occur to a significant ground-water resource. Although this provision deviates from the requirements of existing §§ 780.21(b)(4) and 784.14(b)(3), OSM believes that the two conditions placed on the monitoring exemption provide the required protection of the ground-water resource while allowing the operator to forego monitoring when ground-water supplies are of marginal use or when no appreciable adverse impacts are anticipated.

The need for ground-water monitoring would be derived in each case from the baseline information and the PHC determination, because of the many complex factors relating to potential or actual use, location, alternative supplies, and pumping or delivery costs. If the analysis of baseline information indicates that damage may occur to a significant ground-water resource of if required by the regulatory authority, a ground-water monitoring plan including sampling frequency and parameters must be submitted with the application. A determination that ground-water monitoring is not needed because there would be no adverse impacts on significant water resources would have to be adequately documented with appropriate geologic and hydrologic data submitted with the application. (See proposed §§ 780.21(j)(2) and 784.14(j)(2).) The purpose of this requirement is to assure that the applicant has a sufficient understanding of the ground-water system and adequate data to make such a determination. In addition, the justification will allow the regulatory authority to be aware of specific-site conditions to assure that conclusions reached by the applicant are technically sound. OSM believes that a determination that monitoring is unnecessary may be justified in some cases, such as areas with small, semiperched ground-water zones but other plentiful water resources. All such determinations shall be carefully evaluated by the regulatory authority in view of the required protection of water rights, replacement of water supplies, and maintaining of the hydrologic balance.

OSM is not proposing that a lengthy or comprehensive list of water-quality parmeters be monitored. The proposed rule would list only those parameters considered appropriate to provide an indication of the general water quality as it relates to coal mining activities. The regulatory authority would have the flexibility to require additional monitoring as appropriate.

Proposed §§ 780.21(j) and 784.14(j) specify that for ground water, at a minimum, total dissolved solids and/or specific conductance, pH, total iron, total manganese, and water levels should be monitored during and after mining and reclamation at least every 3 months at each approved monitoring location. The pH and specific conductance can be relied on as indicator parameters that could lead to more detailed analysis of acidity, alkalinity, and/or dissolved solids if the potential for adverse impacts is indicated by the initial analysis. If, as a result of the PHC analysis, there is reason for the applicant to suspect water-quantity or water-quality degradation, appropriate additional monitoring should be proposed in the permit application. For example, if previous surface mining has caused a locally significant increase in water hardness and has impaired the usability of water in springs or wells, or if the PHC determination indicates that this as a likely result, the applicant should include water-hardness testing in the proposed monitoring plan.

Included among the requirements of proposed §§ 780.21(j)(1) and 784.14(j)(1) is a description of how PHC and baseline data may be used to demonstrate what hydrologic impacts, if any, may occur as a result of the mining operation. This requirement is necessary to ensure that the monitoring plan has been properly designed and implemented to meet the need for which it is intended.

The proposed rule would not require that a data comparison be made but would instead require a description of what comparisons can subsequently be made to show the presence or absence of impacts. The rule would also allow the regulatory authority to specify additional parameters to be included in any ground-water monitoring plan. OSM believes that this provision will accomodate local and regional needs with regard to previously observed ground-water impacts.

Surface-water monitoring.

Proposed §§ 780.21(k) and 784.14(k) would require that a surface-water monitoring plan be submitted with all permit applications. This requirement is consistent with the surface-water monitoring requirements of existing 780.21(b)(4) and 784.14(b)(3). The proposed surface-water monitoring requirements are more comprehensive and explanatory than those of existing §§ 780.21(b)(4) and 784.14(b)(3), but would incorporate aspects of §§ 816.52(b) and 817.52(b). OSM believes that monitoring is most appropriately addressed as a permitting requirement, than as a performance standard. The proposed requirements include minimum parameters as sampling periods other than those required for NPDES (National Pollutant Discharge Elimination System) compliance and provide for additional monitoring as specified by the regulatory authority.

The impact of coal mining operations on surface-water hydrology, particularly at points of discharge from underground mines, is often rapid and dynamic and may be difficult to avoid. For that reason, proposed §§ 780.21(k) and 784.14(k) would require a surface-water monitoring plan for all permit applications. Surface-water monitoring would serve two purposes: (1) to assure that hydrologic impacts are minimized and to provide information relating to remedial measures, and (2) to demonstrate that point-source discharges are in compliance with standards set by EPA. The proposed rule would distinguish between effluent monitoring to show compliance with EPA standards and monitoring to measure impacts upon the hydrologic balance and upon water rights.

As with ground-water monitoring, the proposed surface-water monitoring rule would require a narrative statement describing how monitoring data may be used to determine hydrologic impacts and judge the effectiveness of remedial and reclamation techniques. The rule would require that the surface-water monitoring plan be consistent with the baseline information submitted under § 780.21(c) and 784.14(c) and the PHC determination prepared under § 780.21(g) and 784.14(g). Depending on site conditions, parameters in addition to those required to ensure compliance with the EPA effluent standards, may be required by the regulatory authority to provide an evaluation of impacts. OSM proposes at a minimum, that the EPA effluent parameters plus total dissolved solids or specific conductance and flow be monitored at least every 3 months at nonpoint source baseline sites. Thus, under present EPA rules and the proposed rule, total suspended solids, pH, total iron, total manganese, dissolved solids or specific conductance, and flow would have to be monitored.

EPA's revised effluent limitations, proposed at 46 FR 3136–3159 (Jan. 13, 1981), and amended at 46 FR 28873–28881 (May 29, 1981), would introduce a new parameter, settleable solids. OSM believes that these parameters and this sampling frequency would provide the information necessary for evaluating general impacts on a seasonal basis and for aiding the operator in determining when water-treatment facilities may no longer be needed. The rule would allow the regulatory authority to require, on either a statewide or a site-by-site basis, the monitoring of additional water-quality or water-quantity parameters.

Geologic information and analyses—§§ 780.22 and 784.22.

Section 780.22

OSM proposes that existing § 779.14 regarding geologic descriptions for surface mining permit applications be removed. Requirements of § 779.14 have been reorganized and included in proposed § 780.22.

The terms "permit area" and "permit area and potentially impacted offsite areas" in the proposed rule are consistent with the definitions as discussed in the **Federal Register** on January 4, 1982 (47 FR 42–43).

Section 780.22(a) is proposed as a new paragraph to clarify the purposes for which the required site-specific information is to be utilized. The proposed rule does not establish new requirements for data; rather it specifies the applicant's responsibility for providing sufficient geologic information to determine (1) the probable hydrologic consequences of the operation and (2) the existence of any harmful substances in the coal seam and associated strata that could result in degradation of the environment.

Proposed § 780.22(b) requirements for the geologic information and analyses are derived from existing § 779.14. Applicants would continue to be responsible for providing geologic information for the "proposed permit areas, or for areas outside the proposed permit area" to allow a determination of the probable hydrologic consequences as required by existing § 779.14(b)(2). (See proposed § 780.22(c).) OSM agrees with the U.S. Soil Conservation Service that a geologic map is essential in ground-water investigation (U.S. Soil Conservation Service, 1978, p. 3–1 (see complete citation at the end of discussion of proposed §§ 780.22 and 784.22), and has added the requirement in proposed § 780.22(b)(2) that the narrative geologic description be based on the cross sections, maps, and plans required by existing § 779.25 of this chapter and include a discussion of any aquifers that may be adversely impacted. OSM also believes, as stated in the preamble for § 779.14(b) of the existing rules (44 FR 15031 and 15032; March 13, 1979), that much geologic information on the coal fields is presently available to applicants from public and private sources and these reference materials can be used in preparing the narrative description.

Proposed § 780.22(b)(2) would essentially replace existing § 779.14(a), which requires a general statement of the geology "* * * within the proposed permit area down to and including the first aquifer to be affected below the lowest coal seam to be mined." OSM believes "the first aquifer to be affected * * *" has been subjected to differing interpretations and for that reason OSM is proposing a modified rule to eliminate the confusion. The proposed rule clarifies OSM's intention that the geologic description submitted by the applicant does not have to extend down to the first aquifer beneath the coal seam regardless of the vertical distance between the coal seam and the aquifer and whether it could be adversely impacted or not (44 FR 15031; March 13, 1979). This type of information is not necessary in all cases, and the decision on whether it is required would be left to the regulatory authority on a site-specific basis.

However, sections 507(b) (11) and (14) and 508(a)(13) of the Act clearly indicate that those aquifers both on and off the mine site which may be impacted by mining activities will be considered and protected. Also section 517(b)(2)(B) of the Act requires the regulatory authority to specify sites for monitoring a potentially impacted aquifer directly below the lowermost coal seam to be mined. Proposed § 780.22(b)(2) requires that where an aquifer below the lowest coal seam to be mined may be adversely impacted, that aquifer and all its overlying strata shall be included in the narrative. Commonly, the stratum immediately below a coal seam consists of very fine grained, sedimentary rock which has a low transmissivity or does not have the hydrologic properties necessary to transmit or yield ground water. This stratum may range in thickness from less than two to several feet and has been variously referred to locally as "underclay" or "fire clay." Although this "underclay" or "fire clay" stratum is generally not considered an aquifer, the next lower (i.e. underlying) stratum commonly has improved

Tab 12

DEPARTMENT OF THE INTERIOR

30 CFR Parts 701, 779, 780, 783, 784, 816, and 817

Surface Coal Mining and Reclamation Operations; Permanent Regulatory Program Hydrology Permitting and Performance Standards; Geology Permitting

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Final rules.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSM) is issuing final rules governing the hydrology and geology permitting requirements and hydrology performance standards under the Surface Mining Control and Reclamation Act of 1977 (the Act). The rules consolidate previously scattered requirements and clarify the hydrologic and geologic requirements stipulated in the Act. The rules focus primarily on premining data collection and analysis, monitoring, reclamation planning to ensure protection of the hydrologic balance, and design of diversion structures. Greater flexibility is provided to both the operator and the regulatory authority to design and implement surface mining and reclamation operations which address site-specific hydrologic and geologic conditions.

EFFECTIVE DATE: This regulation is effective October 26, 1983. The incorporation by reference of the publication listed in the regulations is approved by the Director of the **Federal Register** as of October 26, 1983.

FOR FURTHER INFORMATION CONTACT: John Mosesso, Division of Engineering Analysis, Office of Surface Mining, U.S. Department of the Interior, 1951 Constitution Avenue, NW., Washington, DC 20240; (202) 343-2168.

SUPPLEMENTARY INFORMATION:

I. Introduction

Protection of the integrity of the Nation's surface- and ground-water resources from the potential adverse impacts of coal mining is one of the major objectives of the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 *et seq.* (the Act). Sections 507 (b)(11), (b)(14) and (b)(15), 508 (a)(5), and (a)(13), 510(b)(3), 515(b)(10), 516 (b)(4), (b)(9) and (b)(12), 517 (b)(2), and 717 of the Act are the primary hydrologic and geologic requirements for permitting, mining, and reclaiming a surface coal mining operation.

Hydrologic and geologic systems are, in most cases, exceedingly complex, and their protection from the adverse impacts of mining activities is often difficult and subject to uncertainty. OSM believes that the best approach to meeting the goals of the Act is through a premining analysis of the potential impacts of mining on the hydrologic balance, application of environmentally protective mining and reclamation practices, and monitoring. To this end, the final rules establish basic permitting and performance standards with nationwide applicability, provide operators the opportunity to apply cost-effective hydrologic and engineering techniques to their particular mining situation, and provide the regulatory authority latitude to prescribe, on a case-by-case basis, additional elements for permit conditions which it deems necessary to protect the hydrologic balance.

The protections prescribed by the Act for surface- and ground-water resources from both surface and underground mining are similar. The final permitting requirements for hydrologic and geologic information for surface mining (Part 780) and underground mining (Part 784) are essentially identical. The hydrologic performance standards for surface mining activities (Part 816) and underground mining activities (Part 817) for the most part are also identical. The primary differences appear in the performance standards for discharges from underground mines and in not requiring the identification and replacement of water supplies that may by impacted by underground mine operations. The following discussion of the rules adopted and the public comments received will reference surface mining requirements unless a specific issue concerning underground mining was raised or is otherwise appropriate. However, the discussion is equally applicable to the requirements for both surface and underground mines.

II. Background

On June 25, 1982 (47 FR 27712), OSM proposed rules for hydrology and geology permitting requirements and hydrology performance standards. This action was taken primarily to clarify the essential hydrologic and geologic concepts contained in the Act, to reorganize the rules so that hydrology and geology requirements would be set in distinct sections rather than being dispersed throughout the permanent program, and to take advantage of the experience gained by OSM over the years by way of updating the rules and providing improved direction to the regulatory authorities and applicants.

The proposed rules were based upon and referenced OSM's Permanent Regulatory Program promulgated on March 13, 1979 (44 FR 14902, 15311). Readers should consult the cited **Federal Register** notices for additional background information regarding hydrologic and geologic requirements and supporting technical references. The reader should also note that, as a result of the district court's decision in *In re: Permanent Surface Mining Regulation Litigation*, C.A. No. 79-1144 (D.D.C. May 16, 1980), certain of the March 13, 1979, permanent program rules for hydrology were amended or suspended. *See* 45 FR 51548, August 4, 1980. Where appropriate these final rules address the court's decision in that case.

Numerous modifications to the rules affecting hydrology were proposed in the June 25 **Federal Register** notice referenced above. Discussion of the public comments received are addressed in Part III of this preamble.

Public meetings were held in Washington, D.C., on July 1, 20, 23, and 27, 1982 and in Pittsburgh, Pennsylvania, on July 22 and 23, 1982. On July 13, 1982 (47 FR 30266), OSM issued a notice closing the public comment period for the hydrology and geology rules, effective August 25, 1982. During the comment period, OSM received comments from sources representing industry, environmental groups, associations, and Federal and State agencies. The OSM Administrative Record for these rules was reopened to allow insertion of the comments made at the oversight hearings held by the House Interior and Insular Affairs Committee on September 9 and 10, 1982.

III. Discussion of Comments and Rules Adopted

A. Definitions (Section 701.5)

Definitions for the terms "cumulative impact area" and "gravity discharge" were proposed in the June 25, 1982, rulemaking. A third term, "potentially impacted offsite areas," was proposed in an earlier OSM rulemaking (47 FR 42-

precision when using these terms in a regulatory context.

In conjuction with the collection of actual baseline data, an applicant may use representative data from sites in close proximity to the proposed operation which have similar hydrologic and geologic conditions. While natural systems can vary from place to place, when sound statistical procedures are employed in conjunction with data from hydrologically and geologically similar sites and the baseline data for the proposed site, this variability can be recognized and accounted for so that accurate projections can be made and verified. Furthermore, the accuracy and usefulness of the PHC determination will be assured because the regulatory authority must review the use of the statistical and modeling methods and may require collection of actual information in addition.

Two commenters wanted OSM to provide a clearly stated methodology for conducting PHC determinations.

In the preamble to the proposed rule, OSM expressed general guidance regarding PHC analysis. Because OSM believes that analyses must be based on local hydrologic conditions, inclusion of PHC methodologies in a regulation of nationwide application would be inappropriate. The combination of the permit information requirements, knowledge of local conditions and typical surface mining impacts, and guidance from the regulatory authority can be used to prepare the PHC determination and to develop an environmentally sound mining and reclamation plan.

One commenter suggested that the PHC determination should be a "description" rather than an estimate of potential impacts.

OSM agrees that descriptions as well as numerical estimates can be used in the PHC determination depending upon the factor being considered and local conditions. Section 507(b)(11) of the Act gives guidance regarding the scope of the PHC determination. It is to be used as a tool for structuring a sound plan for mining and reclamation and must include a determination of probable impacts. The final rule has been revised to require such a determination. Some discretion is necessarily left to the regulatory authority regarding its precise content. However, OSM expects that the PHC determination will include numerical estimates of most impacts.

One commenter proposed the use of data from "more distant locations" if the data reflected regional trends or was otherwise useful in the PHC determination.

Data collected at a distance from a proposed operation may well be useful as an indicator of regional trends and could be used as part of the information used in the PHC determination or the CHIA conducted by the regulatory authority. However, the further one moves from the proposed permit site, the more difficult it is to correlate the data obtained to the proposed site or to estimate impacts from the proposed operation. In most cases, the utility of data used in the PHC determination will be inversely proportional to the distance from the proposed permit area. OSM believes that allowing the use of data "statistically representative of the site" is sufficiently flexible and workable.

One commenter concluded, after reading the preamble to the proposed rules, that OSM did not view the PHC determination as contributing to environmental protection. Instead it was treated as an exercise between the operator and the agency. However, the commenter believed that the PHC determination was intended for the benefit of the public's review.

OSM did not intend to give such an impression in the preamble to the proposed rules. The preamble to the proposal stressed the importance of baseline data and its relationship to an accurate and useful PHC determination. The specific requirements of final paragraph (f) and its direct links with othre permitting and performance standard requirements clearly illustrate OSM's belief in the importance of the PHC determination. The main function of the PHC determination is to describe potential hydrologic impacts which can then be dealt with in the various plans prepared for the mining and reclamation operation and to serve as a basis for the broader cumulative hydrologic impacts assessment. OSM agrees with the commenter that it can serve as a useful document for public information and participation as well and must be included in the permit application which is available for public review.

Sections 780.21(g) and 784.14(f) Cumulative hydrologic impact assessment.

Final paragraph (g) requires the regulatory authority to prepare an assessment of the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining upon the surface- and ground-water systems within the cumulative impact area. The assessment must be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

Changes were made in the regulatory language of proposed Paragraph (h) to make the final rule consistent with, and to emphasize its relationship to, the definition for "cumulative impact area" (§ 701.5) and to the requirements of paragraph (c) for "baseline cumulative impact area information."

As with the requirements for the probable hydrologic consequences determination, a provision has been included in paragraph (g) to assure that the CHIA will be updated, if necessary, whenever there are changes to the approved permit. Thus, an application for permit revision must be reviewed by the regulatory authority to determine whether a new or updated CHIA is required. This is consistent with the revised application review procedures of § 774.13.

OSM is aware of the complexities associated with the evaluation of existing and anticipated mining operations and the preparation of cumulative hydrologic impact assessments (CHIA). OSM's experience with cumulative assessments on Federal lands over the years has shown that sound hydrologic assessments can be made for potential mining impacts on both surface- and ground-water resources. Further, methodologies for making cumulative hydrologic impact assessments are steadily developing and improving as data bases expand. While OSM believes that the CHIA can be accomplished in an environmentally and scientifically sound fashion, the CHIA process cannot reasonably be extended to include remote and speculative impacts. Rather it should be based upon those impacts that have a reasonable likelihood of occurring and which are sufficiently defined to enable the regulatory authority to reach a decision for permit approval.

OSM agrees with some commenters that the Act envisions a portion of the process to be sequential rather than collective because an assessment is required for each application for a permit or permit revision. The cumulative hydrologic impact assessment for any given area will most likely be redefined with each new permit application because the scope of all anticipated mining will be changing.

Under the final rules, the cumulative hydrologic impact assessment need not be a land use planning tool nor result in judgments balancing current coal development and possible future development. The final rule allows a "first come first served" analysis with each subsequent operation being based upon its potential for material damage with respect to any preceding

operations. This approach is not inconsistent with the Act's intent to protect the environment, because no later or revised operations can be approved until a cumulative hydrologic impact assessment is completed indicating that there will be no material damage to the hydrologic balance outside the permit area.

OSM is aware that some States may wish to use the CHIA process as a land use planning tool by accounting for impacts from possible future mining development in their permit reviews. The language of the final definition for cumulative impact area and the final rules for the CHIAs do not preclude regulatory authorities from establishing such a procedure.

One commenter wanted proposed paragraph (h) to allow the regulatory authority to establish criteria to measure "material damage." Others urged OSM to define the term or establish guidelines to evaluate whether material damage would occur from the proposed operation.

Evaluating the probable consequences of the proposed operation upon the hydrologic balance outside the permit area is a very important step in the review of a permit application by the regulatory authority. OSM agrees that the regulatory authorities should establish criteria to measure material damage for purposes of the CHIAs.

However, because the gauges for measuring material damage may very from area to area and from operation to operation, OSM has not established fixed criteria, except for those established under §§ 816.42 and 817.42 related to compliance with water-quality standards and effluent limitations.

Several commenters opposed the proposal to allow the applicant to submit a draft CHIA with the permit application. For some, the proposal was unclear as to who was responsible to collect data and to prepare the assessment. For others the proposal had the potential for conflict between applicants and regulatory authorities regarding the validity of the draft document, variation in assessment approach, availability of data, and expertise. Suggestions were made to delete the provision and to allow the applicant to submit relevant data.

In response to the comments, the final rule has been revised to allow submittal of data and relevant analysis. However, even where an applicant does submit analysis with the permit application, final responsibility for the CHIA rests with the regulatory authority.

One commenter thought that the preamble to the proposed rule pointed out difficulties with attempting to make cumulative impact assessments of future operations. The commenter believed that the proposed rules did not address the difficulties.

While projections of probable cumulative hydrologic impacts may be difficult, the Act requires the regulatory authority to make this effort. OSM has tried to address some of the problems of projection by developing the concept of the cumulative impact area which defines "anticipated mining" to include only non-speculative coal mining operations.

Two commenters thought that there were dissimilarities in intent between proposed paragraph (h) and previous 30 CFR 786.19(c) and that because the proposed section was not one of findings relevant to the basic tenets of the Act, it violated the spirit and intent of the Act.

OSM has included final paragraph (g) in § 780.21 because the section allows the operator to collect information which can be useful to the regulatory authority in its CHIA process. The concept of "findings" by the regulatory authority regarding compliance with the Act, especially with respect to the question of material damage, has been preserved in the revised general permitting procedure rules at § 773.15(e)(5) as well as in § 780.21(g).

Some reviewers suggested adding the phrase "outside the permit area" to the end of the second sentence to make the paragraph consistent with section 510(b)(3) of the Act. OSM has adopted this suggestion.

One commenter thought that this rulemaking provided an opportunity for delineating a methodology for preparing a CHIA and offered seven steps for OSM's consideration.

It is inappropriate to dictate methodologies of CHIA analysis in a regulation of nationwide application. Although some CHIA criteria will be generally applicable, others will be of local value. Therefore, each regulatory authority must adopt a CHIA methodology when reviewing a permit application which will reflect the particular hydrologic and geologic conditions in their area of concern.

Sections 780.21(h) and 784.14(g) Hydrology reclamation plan.

Paragraph (h) sets out the elements to appear in the hydrology reclamation plan which must be submitted with the permit application. This plan must contain maps and descriptions indicating the steps to be taken during mining and reclamation through bond release to meet the requirements of Part 816, including §§816.41 to 816.43; to minimize disturbance to the hydrologic balance within the permit and adjacent areas; to prevent material damage to the hydrologic balance outside the permit area; to meet applicable Federal and State water quality laws and regulations; and, for surface mining activities, to protect the rights of present water users. Measures to be included among the steps to be outlined in the plan are those that will be implemented to: Avoid acid or toxic drainage; prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water-treatment facilities when needed; control drainage; restore approximate premining recharge capacity; and, for surface mining activities, protect or replace rights of present users. Also, the plan must specifically address any potential adverse hydrologic consequences identified in the PHC determination by including preventive and remedial measures.

The final rule reflects a number of editorial changes. The list of particular measures which must be addressed in the plan are based on the requirements of section 508(a)(13) of the Act and the performance standards outlined in section 515(b)(10) of the Act. The relationship between the findings in the PHC determination and the coverage of the protection plan for the hydrologic balance has been made more specific.

A commenter recommended changing the language in proposed paragraph (i) from "onsite and offsite areas" to "mine site and associated offsite areas," in order to make the provision more consistent with sections 507(b)(14), 515(b)(10), 516(b)(9), and 701(28)(B) of the Act. The same commenter thought that the water systems mentioned in section 508(a)(13) referred to water delivery systems and, therefore, did not apply to most coal mining operations. The commenter considered OSM's reliance on this section to support offsite reclamation planning as inappropriate.

OSM agrees that the wording of proposed paragraph (i) should be clarified. However, rather than accepting the commenter's suggestion, the final rule is revised in accordance with terms defined elsewhere in the rules. Thus, the language used in final paragraph (h) revises the proposal to reflect the operator's responsibility to protect the hydrologic balance by minimizing disturbances within the permit and adjacent areas and by preventing material damage outside the permit area. This language is consistent with the intent of the Act in the sections cited by the commenter. OSM disagrees, however, with the commenter's

interpretation of section 508(1)(13) of the Act. While this section does address the rights of water users and alternative water sources, OSM does not interpret the language "surface and ground water systems" to apply to "developed and operating surface and groundwater delivery systems for water uses." Rather, OSM interprets this language to refer to surface- or ground-water hydrologic units, such as a drainage basin, aquifer, soil zone, lake, or reservoir. The hydrologic balance is the relationship between the quality and quantity of water inflow to, water outflow from, and water storage in such systems. Thus, section 508(a)(13) requires the reclamation plan to include a description of the measures to be taken to assure the protection of such systems both within the permit area and the adjacent area. Neither the Act nor legislative history suggests a narrower interpretation for reclamation plan requirements.

One commenter thought that OSM was incorrect in requiring the PHC determination to occur prior to completion of the reclamation plan.

OSM disagrees. The order of the requirements for PHC determination and the reclamation plan in the regulation is inconsequential. The two requirements are naturally interrelated. An operator must determine what adverse impacts to the hydrologic balance are likely to occur from a planned operation and include protective steps to prevent or minimize such impacts.

Monitoring plans

The following discussion covers the rules which prescribe how monitoring plans for surface and ground water must be developed and implemented so that adverse mining impacts can be minimized and so that those impacts due to mining will be distinguishable from those due to other causes.

Sections 780.21(i) and 784.14(h) Ground-water monitoring plan.

Final paragraph (i)(1) requires the operator to develop a ground-water monitoring plan based upon the PHC determination and relevant information appearing in the permit application. It must provide for the monitoring of parameters that relate to the suitability of the ground-water for current and approved postmining uses and to the objectives set forth in the hydrology reclamation plan. The monitoring plan must identify the quantity and quality parameters, sampling frequency, and site locations. It must describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. Minimum parameters are: total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese and water levels. Reports for each monitoring location must be submitted every 3 months. The regulatory authority may require additional monitoring and may adjust monitoring frequency on a case-by-case basis. Specific conductance has been included as an alternative to TDS because it is a measurable parameter indicating the same constituents and may be correlated to TDS.

In certain limited circumstances monitoring may be unnecessary. Such cases may occur in an area having limited perched ground-water zones or where the resource is of marginal quality or quantity and where other ground-water resources are available for current and future uses. Under paragraph (i)(2), if an operator can demonstrate to the regulatory authority, using the PHC determination and other available data, that a particular ground-water resource fits into this narrow exception, then the regulatory authority may waive monitoring of that particular water. All such decisions must be carefully evaluated by the regulatory authority in view of the statutory requirements to maintain the hydrologic balance, to protect water rights, and to replace water supplies.

Numerous commenters criticized the proposed rule for vagueness as to which ground-water resources need not be monitored. Section 517(b)(2) of the Act describes the characteristics of ground-water resources that must be monitored. They are all strata "that serve as aquifers which significantly insure the hydrologic balance * * *."

This statutory phrase, which has been included in § 780.21(i)(2), properly directs the attention of the operator and the regulatory authority to the relationship of the ground-water resource to the hydrologic balance.

Several commenters criticized the proposed rule pertaining to ground-water monitoring for a number of other reasons. Some thought the reference to "significant ground-water resource" was vague. Others believed that the proposed rule would illegally limit the monitoring requirement. OSM has made adjustments in the language of the final rule to address these concerns.

Under the proposed rule, if the PHC determination indicated that adverse onsite or offsite impacts might occur to a significant ground-water resource or if required by the regulatory authority, then the application would include a ground-water monitoring plan. The preamble made clear that it was OSM's intent that such action would be approved by the regulatory authority only after careful evaluation and that the foregoing of monitoring would apply only to water supplies of "marginal use or when no appreciable adverse impacts are anticipated." [47 FR 27718].

The final rule more clearly provides for OSM's expressed intention for a limited monitoring exemption with close review by the regulatory authority as to whether the particular resource at issue will not serve "as an aquifer which significantly insures the hydrologic balance within the cumulative impact area * * *." As an added protection, the regulatory authority has the discretion to deny a request for a waiver for a particular resource if it determines that the resource has significance for the hydrologic balance.

One commenter objected to eliminating the requirements for monitoring such parameters as ground-water levels, infiltration rates, subsurface flow, and storage characteristics. The reviewer thought that OSM was letting the post-mining land use be the controlling factor for monitoring. The commenter urged consideration of ground water in the support of fish and wildlife and other resources.

The final rules do not require analysis or monitoring of all the parameters specified by the commenter in every case. Rather, depending upon the results of the PHC determination, part or all of this kind of supplemental information may be necessary at the discretion of the regulatory authority as provided for in § 780.21(b). As for the commenter's second point, the postmining land use is only one of several factors governing actions to protect ground water.

One commenter thought that adverse effects to "currently used" ground-water resources as well as "significant" resources should be included so that even lower yielding and/or quality aquifers would be protected, an important consideration in the western States.

OSM agrees with this reasoning. The final rule is broad enough to allow for such consideration.

Several commenters supported the proposed ground-water monitoring exclusion believing that it would result in a more realistic and workable monitoring program.

OSM believes that monitoring will be the general rule. It has defined the very limited circumstances when monitoring of a ground-water resource may not be required.

One commenter objected to deleting the general requirement for monitoring all water resources in order to determine

the effects of surface mining activities, which appeared in previous § 816.52(a)

Generally the final rules require the monitoring of ground-water resources. The exemption which OSM has provided has been narrowly drawn and requires the operator seeking the exemption to demonstrate to the regulatory authority that a particular resource has a limited effect, if any, on the hydrologic balance. In any event, baseline information will be available for all ground-water resources.

Numerous commenters suggested that although a ground-water resource may be determined not to be "significant" in its own right, nevertheless it may supply water to other ground-or surface-water resources that are significant. Commenters feared that relaxation of monitoring requirements might allow contamination of significant resources by the acidic, toxic, or other poor qualities of non-significant ground water. Commenters especially feared that these marginal resources might be the only supplies available for fish and wildlife.

As was discussed above, OSM has modified the final rule to focus on the relationship the ground-water resource has to the hydrologic balance. Issues of the interconnected nature of the water bodies and use by wildlife have to be resolved to the satisfaction of the regulatory authority. The number of ground-water resources eligible for the waiver will be limited. No lowering of environmental protection or loss of resources which will be useful in the future is expected. Finally, regardless of the site specific conditions which might appear to allow a ground-water monitoring exemption, the regulatory authority has the responsibility to require monitoring if it determines that such action is necessary to protect the hydrologic balance of the area.

Similarly, several commenters suggested that the ground-water monitoring exclusion should include consideration of surface-water resources as well as ground-water resources. They argued that this inclusion would help minimize potential for ground-water contamination through interconnected and contaminated surface waters.

OSM agrees with this reasoning. The final rule takes into account adverse effects to surface-water resources because they are part of the total hydrologic balance.

Several reviewers wanted OSM to provide guidance regarding the terms "significant" and "marginal" as used in the proposed rule and the preamble. Suggestions included using the term "ecologically significant" and taking into account both present and future uses of ground-water resources.

OSM has modified the rule so that the focus is on adverse effects to the hydrologic balance rather than the significance or marginality of an individual resource. Current and potential uses of the ground-water resource would be relevant to any decision for waiver of monitoring.

A number of commenters suggested that OSM replace the proposed quarterly monitoring requirements with a more flexible schedule. Reasons offered in support of this position included: the burden and expense of monitoring, the slowness of detectable changes in ground-water quality, the lack of quality changes following the first year of operation, variability of local hydrologic and seasonal conditions which affect monitoring such as ice and snow cover, and the regulatory authority's knowledge of local conditions.

OSM agrees that a variety of factors can affect schedules for monitoring. However, the quarterly monitoring requirement does not impose an undue burden on operators and it will help identify any hydrologic problems that may develop during mining. the final rule allows the regulatory authority to require more frequent monitoring on a case-by-case basis. Such decisions should rely on baseline hydrologic and geologic information, PHC findings and the CHIA. If during mining and reclamation the monitoring has demonstrated that the hydrologic protection requirements are met or that monitoring is no longer necessary to achieve its purposes, the monitoring frequency may be adjusted in accordance with § 816.41(c)(3).

Three commenters wanted to see all ground-water resources monitored. They thought that the protection requirements of the Act could not be met without monitoring and that early-warning capabilities would be lost.

OSM disagrees with the commenter's characterization of Congress' intent with respect to the amount of required monitoring. Throughout the legislation, the focus is on the protection of the hydrologic balance as a whole. Therefore, attention to and individual water resource relates to its connection with this larger issue of protection of the hydrologic balance.

The narrow exception to monitoring, which the final rules provide, requires careful scrutiny of the effects such action may have on the hydrologic balance. The regulatory authority will be able to take into account a broad range of considerations before authorizing a particular waiver.

Commenters have raised numerous areas of concern, for example, potential use, current use, wildlife, interconnectedness of resources, and early-warning factors. OSM views these as relevant to the regulatory authority's decision.

One commenter wanted to see the reporting requirements contained in previous § 816.52(a)(3) added to the final rule.

The final rule includes provisions requiring operators to report both surface- and ground-water monitoring information to the regulatory authority.

Several commenters wanted OSM to delete the list of parameters to be monitored. Others thought the measurement for total manganese was inappropriate under alkaline conditions. They also suggested using "settleable solids" instead of suspended solids.

As was discussed previously, the monitoring required under the final rule is not considered to be excessive and will serve the operator and regulatory authority as a standard against which impacts can be measured. With respect to the analysis of manganese, the predictability of the occurrence of manganese does not directly correlate with typically "alkaline conditions." Although in many cases alkaline conditions make manganese less important, no clear line of applicability can be drawn. This, coupled with the relatively low cost of the analysis, lends support for the adoption of this test.

The suggestion to require monitoring of settleable solids has not been accepted where ground water is concerned. Settleable and suspended solids are associated almost exclusively with surface waters, but not ground water since they become naturally filtered by subsurface ground-water movement. Thus, the analysis of total dissolved solids is most applicable for routine ground-water evaluation. Analysis of total dissolved constituents along with other baseline information will serve as indicators of potential problems and may point to the need for additional or more specific analysis, which can be done at a relatively low cost. For surface waters, monitoring requirements for settleable solids will be established by the NPDES permitting authority.

Two commenters proposed deleting provisions allowing the regulatory authority to add monitoring requirements and instead only authorize considering "significant" impacts to water resources. The commenters thought that section 517(b)(2) of the Act specified when ground water must be monitored and that since the regulatory

authority approved monitoring plans the provision regarding additional requirements was redundant.

The commenters have misunderstood the meaning of section 517(b)(2) of the Act. It does not limit monitoring to situations where there are significant impacts to water resources. Instead it calls for monitoring when an operation will remove or disturb strata which serve as aquifers which have significance for the hydrologic balance. Given OSM's recognition of the importance of considering specific conditions, it is necessary for the regulatory authority to have the flexibility to require the appropriate level of monitoring.

Sections 780.21(j) and 784.14(i) Surface-water monitoring plan.

Final paragraph (j) requires the application to contain a surface-water monitoring plan. This plan will be based upon the findings of the PHC determination and analysis of the baseline hydrologic, geologic, and other relevant information included in the application.

The plan must relate to the suitability of the surface water for current and approved postmining land uses, to the objectives set forth in the hydrologic protection plan under paragraph (h), and to U.S. Environmental Protection Agency (EPA) effluent limitations found at 40 CFR Part 434. The application must identify the surface-water quality and quantity parameters to be monitored, sampling frequency, and monitoring site locations and must describe how the data collected will be used to determine the impacts of the operation upon the hydrologic balance.

At all monitoring locations in surface-water bodies which may be potentially affected by the impacts of the operation or into which water is to be discharged and at upstream monitoring locations, the following parameters must be monitored: total dissolved solids or specific conductance corrected to 25°C, pH, total suspended solids, total iron, total manganese, and flow. Additionally, in the case of all point source discharges, monitoring must be conducted in accordance with EPA permitting and monitoring requirements (40 CFR Parts 122, 123 and 434) and as required by the National Pollutant Discharge Elimination System permitting authority.

These data must be reported to the regulatory authority every 3 months. The regulatory authority may require additional monitoring on a case-by-case basis.

Some changes were made to the language of the paragraph to clarify the interrelationship between the surface-water monitoring plan and certain other findings and data included in the permit application. In response to comment from the U.S. Environmental Protection Agency (EPA), monitoring of point source discharges must be conducted to accord with the requirements of 40 CFR Parts 122, 123, and 434 and as otherwise required by the National Pollutant Discharge Elimination System permitting authority.

One commenter thought that proposed paragraph (k) did not recognize the need, as stated in prior § 816.52, for monitoring to be adequate to measure and record the quality and quantity of discharges from the permit area. The commenter feared that restricting required accuracy to that sufficient to meet postmining land uses would not recognize the continuing need to analyze changes in numerous parameters so as to anticipate and prevent unforeseen changes. The commenter also objected to an alleged deletion of a requirement for joint NPDES/OSM permits, contending that this flew in the face of regulatory reform.

The final rule for the surface-water monitoring plan does not inappropriately limit the degree of accuracy required for monitoring. Monitoring is to be based on the PHC determination and must be sufficient to measure the suitability of the surface water for current and approved postmining land uses, to meet the objectives for protecting the hydrologic balance as set forth in the plan required by paragraph (h), as well as to meet EPA effluent limitations. Monitoring for these objectives should result in the data necessary to indicate any unforeseen changes. In turn, this paragraph, coupled with the requirements of §816.41(e), will allow for prompt response to indications of changes in the form of noncompliance with permit conditions. Finally, previous § 816.52 did not involve the issuance of joint permits between EPA and OSM. OSM has advanced the goal of regulatory reform by clarifying the monitoring procedures it will expect from an operator.

One commenter proposed deleting the monitoring locations for impoundments "into which water will be discharged." The commenter thought that potential impacts would have been brought out in the PHC determination and that impoundments would be monitored as point source discharges under the EPA rules adopted by OSM at § 816.42.

The commenter misunderstands the intent of the referenced language. Whether or not monitoring is conducted of all impoundments into which water is discharged will be determined by the regulatory authority based upon the PHC and the need to protect the hydrologic balance. If monitoring of such bodies of water is appropriate, paragraph (j)(2) indicates the minimum parameters to be reported. Additionally, receiving waters may not always involve a point source discharge covered by an NPDES permit, and monitoring of discharges only may not indicate possible problems with meeting the water-quality standards of the receiving stream. Therefore, monitoring at such sites is included in the final rule.

E. Hydrologic Balance Protection Performance Standards (§ 816.41 and 817.41)

Sections 816.41(a) and 817.41(a) General.

Paragraph (a) outlines the general goals for the hydrologic balance section which are to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and other relevant performance standards in Parts 816 and 817. In the case of surface mining activities, the conduct of the operation must also assure the protection or replacement of water rights. (This distinction comports with the decision *in re: Permanent Surface Mining Regulation Litigation*, C.A. No. 79-1144 (D.D.C. May 16, 1979)). Also under paragraph (a), the regulatory authority may impose additional preventive, remedial, and monitoring measures to ensure that material damage outside the permit area is prevented. Finally, the rule indicates that mining and reclamation practices that minimize water pollution and changes in flow are preferable to water treatment.

The final rule highlights the distinction which the Act draws between minimizing disturbance to the hydrologic balance in the permit and adjacent areas and preventing material damage to the hydrologic balance outside the permit area. (See sections 510(b)(3) and 515(b)(10) of the Act.)

Two commenters raised an issue specific to the underground mining performance standard (§ 817.41(a)). They recommended that the phrase "to assure protection of water rights" be deleted because section 516(b)(9) of the Act did not mention protection of water rights. The commenters referred to Judge Flannery's decision, *In re: Permanent Surface Mining Regulation Litigation,*

C.A. No. 79-1144 (D.D.C. May 16, 1979), which ruled that operators of underground mines were not required to replace water if it were lost. A similar argument was raised for § 817.41(c). These comments have been accepted and the appropriate deletions have been made.

Sections 816.41(b) and 817.41(b) Ground-water protection.

Paragraph (b) begins by stating the goals of this performance standard, namely to protect the hydrologic balance by following the plan approved under § 780.21(h) or 784.14(g).

Ground-water quality must be protected by handling earth materials and runoff so as to minimize acidic, toxic or other harmful infiltration into the ground-water systems. Excavations and other disturbances must be managed to prevent or control the discharge of pollutants into such systems. Ground-water quantity must be protected by handling earth materials and runoff in order to restore the approximate premining recharge capacity of the reclaimed area, excluding coal mine waste disposal areas and fills, so as to allow for the movement of water to the ground-water system.

Changes have been made from the proposed rule to specifically include reference in the final rule to the hydrology protection plan required by §§ 780.21(h) and 784.14(g) and to simplify the language of paragraph (b)(2) by simply referencing restoration of the recharge capacity of the reclaimed area as required by the Act and as was provided in previous § 816.51.

The proposed reference to "coal-processing wastes" has been replaced by the more general phrase "coal mine waste." This accords with OSM's revised rules dealing with disposal of coal mine waste.

Two commenters stated that the new provision which emphasized water availability rather than recharge capacity would have the potential to add significant new responsibilities for operators in restoring subsurface storage and flow capability. The commenters contended that OSM had not provided a justification in law or fact for the change. The commenters believed that restoration of recharge capacity was sufficient to assure that ground-water supplies would continue to be adequate for meeting postmining land use needs.

Another commenter stated that OSM had not defined or explained the use of the term "water availability" in the proposed rules and questioned its use as a substitute for the term "recharge capacity."

The final rule has been revised to specify restoration of recharge capacity rather than water availability. This change is in accord with section 515(b)(10)(D) of the Act. OSM disagrees, however, with the commenter's reasoning on water availability. OSM's emphasis in the proposed rule on water availability rather than recharge capacity accords with Congress' intent for water availability in ground-water systems after mining and reclamation to be similar to that which existed prior to mining. This comports with the requirement of section 507(b)(11) of the Act that the regulatory authority assess "the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and *particularly* upon water availability" prior to issuing a mining and reclamation permit. [Emphasis added] However, OSM has redrafted parargraph (b)(2) to specifically reference recharge capacity as was set forth in the previous rules and has included an introductory paragraph in final § 816.41(b) referencing required compliance with the hydrology protection plan of §§ 780.21(h) and 784.14(g). Although recharge capacity is only one characteristic of the reclaimed area's ability to transmit water to ground-water systems, if this characteristic is assured, the availability of water in most cases will likewise be assured. Additional measures necessary to protect ground-water quantity beyond re-establishing premining recharge capacity will be identified in the PHC and CHIA for the mine and included in the hydrology protection plan.

One commenter suggested that the language in proposed paragraph (b)(2) should be rephrased to allow the regulatory authority to take into consideration the feasibility of restoring subsurface storage and flow capability of the reclaimed area.

Reclamation considerations are basic to the issue of whether a proposed operation can be permitted. Although requirements for restoration of subsurface storage and flow capability have not been included in the final rule, restoration of approximate recharge capacity is required. The requirement comports with the environmental protection performance standards of the Act, particularly section 515(b)(10)(D). Any additional requirements necessary to protect ground-water quantity will be included in the hydrology protection plan under §§ 780.21(h) and 784.14(g).

One commenter recommended that the proposed requirement to restore approximate premining water availability be modified to account for water level drawdown induced by ground-water development by other industrial, commercial, and residential users which occurred during the period of the mining operation.

Reference to "water availability" has been deleted from the final rule as explained above. However, if the situation described by the commenter were to occur, then the regulatory authority would take the baseline data on water availability and withdrawals by the mine operator into account at the time of reclamation. Obviously, the mine operator cannot be held responsible for water that has been withdrawn by other industrial, commercial, and residential users.

Two commenters recommended substituting the words "water resources" for "water availability" in proposed paragraph (b)(2). The commenters thought that this would clarify that the water resource must be protected. They contended that OSM did not have the authority to require restoration of private water supplies.

As indicated, the final rule deletes the use of the term "water availability." Replacement of private water supplies is, however, required under § 816.41(h) and section 717 of the Act for surface mining activities.

One commenter suggested replacing the phrase "storage and flow capability" with the phrase "flow system" in proposed paragraph (b)(2). According to the commenter, since the overburden which is backfilled in place of the removed resource has different physical and chemical properties, its storage and flow capabilities would differ.

OSM agrees with the commenter's view regarding the character of backfilled materials. Under the final rule, these changes can be considered in completing the required PHC and CHIA for the mine.

Sections 816.41(c) and 817.41(c) Ground-water monitoring.

Paragraph (c) requires that ground-water monitoring be conducted according to the approved monitoring plan. The regulatory authority may require additional monitoring. The monitoring data must be submitted on a quarterly basis or more frequently as prescribed by the regulatory authority. When the analysis indicates noncompliance with permit conditions, then the operator must promptly notify the regulatory authority and take the actions prescribed under revised §§ 773.17(e) and 780.21(h) or 784.14(g).

The ground-water monitoring must continue until bond release. Consistent

with the permit revision rule (§ 774.13), the regulatory authority may modify the requirements if the operator demonstrates, using the already collected monitoring data, that: (1) The operation has minimized disturbances to the hydrologic balance in the permit and adjacent areas and prevented material damage outside the permit area; the water quantity and quality are suitable for supporting approved postmining land uses; and the water rights of others have been protected or replaced (in the case of surface mining operations); or (2) monitoring is no longer necessary to achieve the purposes which were set out in the approved monitoring plan. Paragraph (c) also requires the proper installation, operation, maintenance, and removal of monitoring equipment or structures so that the landowners do not have to assume such costs.

The final rule is substantially similar to the proposed rule. Paragraph (c)(2) elucidates what the monitoring reports must contain. The language adopted appeared in proposed paragraph (e)(2) for surface-water monitoring. Paragraph (c)(2) also identifies what actions must be taken when the analysis from monitoring indicates noncompliance with permit conditions. This addition was prompted by a comment from the EPA. Such actions are spelled out generally in the permitting requirements at § 773.17(e) and more particularly for hydrologic concerns in the hydrology protection plan under § 780.21(h) (784.14(g)). The conditions to be met prior to regulatory authority approval for modification of monitoring requirements have been clarified. A reference to the permit revision requirements has been added to illustrate that modifications to the monitoring plan must be considered to be a permit revision.

One commenter suggested that the word "availability" in proposed paragraph (c)(3)(i) be replaced by "quantity." OSM has accepted this suggestion.

One commenter thought that OSM did not present any evidence to support the decision to allow the regulatory authority, in the absence of monitoring, to decide on bond release. The commenter observed that monitoring is conducted not only to meet the requirements of the monitoring plan but also to check on the mining and post-mining conditions on and off the site.

Section 816.41 does not establish standards for bond release. However, under paragraph (c)(3) monitoring is required to continue until bond release unless the operator demonstrates that monitoring is no longer needed for its intended purpose or to demonstrate compliance. Such a change may only be made in accordance with the requirements for permit revisions. If there are conditions or events on a specific site that require monitoring for longer periods of time, then continued monitoring would be required by the regulatory authority.

Standards for bond release are contained in section 519 of the Act and are implemented in 30 CFR 800.40 (48 FR 32962, July 19, 1983). While monitoring is not specifically required to allow bond release, the regulatory authority must evaluate the completed reclamation operations, including considering whether pollution of surface or ground water is occurring and the probability of continuance of such pollution before releasing the bond. Section 816.41(c) provides the regulatory authority sufficient flexibility to require monitoring in support of this evaluation when necessary. Under § 800.40(c)(3) no bond shall be fully released until reclamation requirements of the Act and permit are fully met.

Sections 816.41(d) and 817.41(d) Surface-water protection.

The reorganization of paragraph (d) parallels that of the ground-water protection paragraph. The general goal and requirement to comply with the hydrology protection plan of §§ 780.21(h) and 784.14(g) are summarized at the beginning because they apply to surface-water quality and quantity protection. Some of the language of paragraph (d)(1) has been changed to follow the statutory language found at section 515(b)(10) of the Act. Also certain redundant language has been removed. Actions to protect surface-water quantity will be identified in the surface-water protection plan. The connection between this plan and the performance standard are made more clear.

Paragraph (d)(1) requires operators to protect surface-water quality by minimizing the formation of acidic or toxic drainage and by preventing, to the extent possible using the best technology currently available, the contributions of suspended solids to streamflow outside the permit area and by otherwise preventing water pollution. If reclamation and remedial practices are not adequate to meet the requirements of §§ 816.41 and 816.42, then water-treatment facilities or water-quality controls must be used. Surface-water quantity and flow rates must be protected by following the steps outlined in the approved surface-water protection plan.

One commenter thought that Congress intended to control erosion and suspended solids only during active mining. The commenter questioned why OSM was requiring perpetual sediment and erosion control after reclamation had been completed.

The commenter has misunderstood the intent of the Act and the rules. Section 701(27) of the Act coupled with section 515(b)(10)(B) make it clear that the responsibility of the operator to prevent additional contributions of suspended solids to streams continues through reclamation until bond release.

Sections 816.41(e) and 817.41(e) Surface-water monitoring.

Paragraph (e) requires that surface-water monitoring be conducted according to the approved monitoring plan. The regulatory authority has flexibility to require additional monitoring. The monitoring data must be submitted on a quarterly basis to the regulatory authority, or more frequently as prescribed by the regulatory authority. It must include analytical results from each sample taken during the reporting period. In the case of a permit violation, sampling results must be submitted promptly to the regulatory authority and the protective steps taken as set forth in §§ 773.17(e) and 780.21(h). The reporting requirements of paragraph (e) in no way exempt an operator from complying with NPDES reporting requirements.

Monitoring must proceed through bond release. However, if certain conditions are met, the regulatory authority may modify monitoring requirements, except those required by the NPDES permitting authority. To allow a modification, the conditions which must be demonstrated by the operator using the monitoring data are: (1) That the operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage outside the permit area; that the quality and quantity of the water are suitable for approved postmining land uses; and that, in the case of surface coal mining activities, the water rights of other users have been protected or replaced; or (2) monitoring is no longer necessary to achieve the purposes which were set out in the approved monitoring plan (§ 780.21(j)). Finally, monitoring equipment and structures must be properly installed, operated, and maintained and must be removed by the operator when no longer needed.

Some commenters thought that in contrast to the prior rule, § 816.52(b), the proposed rule lowered the standards for monitoring and thereby limited the ability of the regulatory authority to

assess the impact of mining upon the hydrologic balance and to notice sub-critical changes in water quality and quantity that might be indicators of damage to other resources.

OSM disagrees. Monitoring must be conducted in accordance with the approved monitoring plan under which key parameters must be monitored to protect the hydrologic balance and which has to be based upon the PHC determination and other baseline information. The final rule gives more discretionary power to the regulatory authority to adjust monitoring requirements to match the conditions that may occur at an individual mine site. This flexibility will result in better protection of the environment because it allows site specific adjustments. Such action fully complies with the Act.

Two commenters opposed the proposed 3-month reporting requirement. One of these also suggested substituting the phrase "any surface-water sample" which appeared in proposed paragraph (e)(2) with the phrase "point source discharges."

These comments are rejected. First, it is reasonable to require monitoring on a quarterly basis to identify hydrologic impacts that may occur during mining and provide the operator with an opportunity to institute remedial measures if necessary. (Quarterly reporting was also required under previous § 816.52(b)(1)(iii).) The final rule also gives the regulatory authority the discretion to require submission of monitoring data at a more frequent interval when appropriate. Second, use of the phrase "point source discharges" in this paragraph would not be sufficiently inclusive. OSM's intent is to have monitoring for point source discharges as well as other surface-water bodies.

Another commenter believed that the deletion of the requirement to report NPDES noncompliance would complicate both the applicant's and the regulatory authority's part in coal resource development.

The commenter has misinterpreted the intent of the proposed rules. Compliance with NPDES standards is part of the terms and conditions of a SMCRA permit. Noncompliance with any term or condition of a permit requires prompt notification of the regulatory authority.

One commenter questioned allowing the discontinuance of monitoring at bond release even when the disturbance to the hydrologic balance had been minimized, the post-mining land uses had been supported, and water rights were protected. The commenter feared that some areas could still show contamination of effluent quality that might be injurious to other resources or indicative of problems that were still unsolved.

Under the final rules for bond release, the regulatory authority must determine that disturbance to the hydrologic balance has been minimized in the permit and adjacent areas and that material damage has been prevented outside the permit area. While the performance standards for surface- and ground-water monitoring allow a regulatory authority to modify monitoring requirements based on certain showings, nevertheless it retains the responsibility to determine that the regulatory requirements have been met prior to bond release.

Sections 816.41(f) and 817.41(f) Drainage from acid- and toxic-forming materials.

Paragraph (f) appeared as § 816.41(g) in the proposed rules.

The final rule requires that the drainage from acid- and toxic-forming material be avoided by identifying, treating or burying, and, when necessary, burying and treating such materials in order to prevent adverse effects to water quality, to vegetation, or to public health. Section 817.41(f) also applies to underground development waste. Storage of such materials must be limited to the period until burial and/or treatment first become feasible and so long as storage will not result in any risk of water pollution or other environmental damage. Storage or treatment must be conducted in a manner that will protect the surface water and ground water by preventing erosion and polluted runoff. The practices used for storage, burial, or treatment must be consistent with other material handling and disposal provisions of 30 CFR Chapter VII.

Paragraph (f) has been adopted substantially as proposed. By including the word "and" in the last sentence of paragraph (f)(1)(ii), OSM is emphasizing that in no case will storage be permissible if to do so will result in water pollution or other environmental damage. Paragraph (f)(2) points out that practices for dealing with acid- or toxic-forming materials must be consistent with other material handling and disposal provisions in the final rules.

Two commenters supported not setting the 30-day storage limitation which appeared in the previous rules at § 816.48. They considered such a requirement as frequently impractical.

One of these also endorsed the concept that both treatment and burial of acid- and toxic-forming materials may not be required.

Under the previous rules, treatment and burial were not required in all cases. And temporary storage of spoil was permissible under § 816.48 if approved by the regulatory authority upon a finding that such action would not result in any material risk of water pollution or other environmental damage. Although OSM has deleted the 30-day limit on storage, the final rule continues to require that water quality and the environment must be protected.

Noting the proposed elimination in the backfilling and grading rule of the requirement to cover toxic- and acid-forming materials with 4 feet of soil (§ 816.103(a)), one commenter thought it would be difficult for the applicant to decipher what the regulatory authority would accept with regard to protection of the hydrologic balance from the adverse effects of offensive spoil. The commenter believed that the modifications proposed for § 816.41(g), together with the elimination of the 4-foot cover requirement in § 816.103(a) would have the cumulative effect of lowering the protection afforded the environment.

OSM disagrees with this conclusion. The final rule requires burial and/or treatment of acid- and toxic-forming materials so that no pollution of surface or ground water occurs, and so that no harm comes to the environment or public health and safety. Paragraph (f)(2) requires the management practices to be consistent with povisions that direct the handling and disposal of materials.

OSM is aware of the many potential problems that attend the proper disposal of toxic materials. However, a national standard for cover thickness is not the solution or solutions to these problems. Instead the regulatory authority should set whatever standards, specific or otherwise, provide the best solution or solutions within the State. In some instances, 4 feet of cover may be inadequate to provide the requisite protection. The difficulties operators may have in understanding the requirements can be avoided by allowing the State regulatory authorities to set, and encouraging them to explain, standards designed for local conditions.

The same commenter cpposed deleting the requirement that acid- or toxic-forming materials be stored on impermeable material (previous § 816.48(c)), fearing that with proposed changes in the monitoring provisions the detection of environmental damage would be difficult.

This comment was rejected. The final rule requires storage of potentially acid- or toxic-forming material in a manner

that will protect surface and ground water. While this may require impermeable liners in some cases, such a general requirement is overbroad and would impose undue expense and potential disturbance of otherwise undisturbed areas in order to obtain the impermeable material. Under the final rule, the regulatory authority can require impermeable liners where necessary. Additionally, the final rules require sufficient monitoring to ensure that the hydrologic balance is protected.

One commenter suggested including "treatment" along with storage as a method for dealing with the problem of drainage from acid or toxic materials.

OSM has accepted this suggestion because if storage of toxic- and acid-forming material is expected to cause water pollution or other environmental damage prior to its safe burial, then treatment of such material may be necessary.

Section 816.41(g) and 817.41(g) Transfer of wells

Paragraph (g) appeared as § 816.41 (h) in the proposed rule. The final rule provides that exploratory or monitoring wells must either be sealed in accordance with §§ 816.13 to 816.15, or, with the prior approval of the regulatory authority, be transferred to another party for further use. The conditions of the transfer must comply with State and local law. The permittee will remain responsible for the proper management of the transferred well until bond release in accordance with the requirements of §§ 816.13 to 816.15.

One commenter observed that unlike the prior rule the proposed rule did not address the question of liability. The commenter argued that under the proposal, determinations of liability based on local and State laws would be difficult because of confusion or deliberate maneuverings.

Based on the language of section 515(b)(10)(A)(iii) of the Act, the permittee retains responsibility for the proper casing, sealing, and managing of wells during all surface coal mining and reclamation operations. So long as the permittee remains responsible, there is no need for the rule to address the responsibility of the transferee or to establish categories of primary and secondary liability. The final rule does not preclude the permittee and the transferee from entering into private arrangements whereby the transferee could assume contractual obligations regarding the well. Similarly the final rule does not prevent a State from imposing additional obligations on a transferee. The final rule clarifies the operator's responsibility by specifying that the permittee remains responsible under the Act for proper management of the well until bond release.

Sections 816.41(h) Water rights and replacement

Final § 816.41(h) appeared as proposed § 816.41(i) and requires any person who conducts surface mining activities to replace the water supply of an owner of interest in real property who obtains all or part of his supply for domestic, agricultural, or other legitimate use from an underground or surface source which has been adversely impacted by contamination, diminution, or interruption proximately resulting in from the surface mining activity. The impact of the mining operation on the water resource must be determined by using the baseline information developed during the permitting process.

One commenter recommended deleting the proposed word "suitable" because it was a subjective term. The commenter suggested that the second sentence read "The water supplies shall be replaced with an alternative source of equal of better quality and quantity to the per-impacted supply." Another commenter suggested modifying the language in the second sentence of proposed paragraph (i), so that the operator need supply water of a suitable quality or quantity only if the water supply in question previously could have met the requirements of the postmining land use.

OSM has responded to these comments by deleting the second sentence of the proposed rule which contained the language objected to by the commenters. This sentence is unnecessary since it is implicit in the requirements of section 717(b) of the Act, which are repeated in the first sentence of paragraph (h), that the alternative water supply must be capable of restoring the water user's supply which was lost due to surface mining impacts. The requirements of paragraph (h) to replace water supplies are thus tied to pre-existing uses and not the postmining land use.

One commenter believed that the issue of water rights operated strictly in accordance with State water law and suggested language changes to emphasize the point.

OSM agrees that water rights operate in accordance with State water law and that the requirements under the Act do not change these rights except for requiring operators of surface coal mines to replace affected water supplies. First, section 717(a) of the Act makes this clear by providing that the Act does not affect the right of any person to enforce or protect, under applicable law, his or her interest in water resources. Second, section 717(b) of the Act and paragraph (h) require that a use be a "legitimate" use before it can qualify for replacement. Any use that would be in violation of State water rights would not be a "legitimate" use. Thus, no change is required in the final rule to accommodate the commenter's concern.

Sections 816.41(i) and 817.41(h) Discharge of water into an underground mine

Final §§ 816.41(i) and 817.41(h) appeared as §§ 816.41(j) and 817.41(i) in the proposed rules. The final rules provide that the discharge of water into an underground mine is prohibited, unless it can be demonstrated to the satisfaction of the regulatory authority that the discharge will minimize disturbance to the hydrologic balance on the permit area, prevent material damage outside the permit area, meet with the approval of the Mine Safety and Health Administration, not violate applicable water-quality standards and effluent limitations, and be of known quality and quantity to meet the effluent limitation in §§ 816.42 and 817.42 for pH and total suspended solids. The pH and TSS standards may be exceeded if they are approved by the regulatory authority. Permissible discharge materials are limited to the six kinds of material listed in the previous rules, with the addition of a seventh, water. The final rule is substantially similar to the previous rule, which was codified at §§ 816.55 and 817.55.

OSM has moved language appearing in proposed § 817.41(j)(1) to final § 817.41(h)(3). The rule allows water from an underground mine to be diverted into other underground workings provided the requirements of the section are met. The transfer of the language from paragraph (j) to (h) was made for organizational purposes and has no substantive effect.

One commenter suggested that trash and garbage be added to the list of wastes that could be discharged into an underground mine. The commenter asserted that this method of disposal might in many cases be more environmentally sound than disposal by incineration or burial in a surface landfill.

OSM rejects this suggestion because of the potential of degrading the quality of ground water. Revised §§ 816.89 and 817.89 govern the disposal of non-coal mine waste. Also, the disposal of such materials is regulated by other laws.

The U.S. Environmental Protection Agency asked OSM to note in this rule that discharges into underground mine workings must be in compliance with any applicable requirements of the Underground Injection Control Program promulgated under Part C of the Safe Drinking Water Act (Pub. L. 93–523, as amended, 42 U.S.C. 300f *et. seq.*). The list of Class V wells in 40 CFR 146.05(e) includes sand backfill and other backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined out portions of subsurface mines whether what is injected is a radioactive waste or not. This provision may apply to the underground disposal method described in § 816.81(f). At this time, the only requirements that apply to Class V wells are: (1) The inventory reporting requirement in 40 CFR 122.37(c)(1); and (2) the general prohibition against contamination of underground sources of drinking water in 40 CFR 144.12.

Section 817.41(i) Discharge of water from underground mines.

Section 817.41(i) for underground mines was proposed as § 817.41(j) and replaces previous § 817.50. The essential requirements of the previous rule have been retained. The final rule requires that surface entries and accesses to underground workings be managed to prevent or control gravity discharges of water from the mine. Except for drift mines, the gravity discharge of water from an underground mine may be approved by the regulatory authority upon the demonstration that the untreated or treated discharge complies with the performance standards of Part 817 and any additional NPDES permit requirements.

Section 817.41(i) also provides that surface entries and accesses to drift mines which are used after the implementation of State, Federal, or Federal lands programs and which are located in acid- or iron-producing coal seams must be located in such a manner as to prevent any gravity discharges from such mines.

One environmental group thought that rewording the proposed rule by deleting the requirement of previous § 817.50 for untreated discharges to meet effluent limitations could result in the need for perpetual treatment at mines, a requirement the commenters felt was not practicable under any circumstances.

OSM disagrees with this interpretation of the meaning of § 817.41(i). This rule requires the untreated or treated gravity discharge from an underground mine to comply with the requirements of Part 817 performance standards and NPDES permit requirements. Under the requirements of §§ 817.41(a) and 817.42, point source discharges from underground mines must meet applicable effluent limitations and water-quality standards; minimize disturbances to the hydrologic balance; and support the approved postmining land use. Treated discharges must meet similar applicable requirements. The final rule merely combines the requirements for untreated and treated discharges into one sentence. It does not impose a requirement for perpetual treatment at mines.

The same commenter thought that the proposed definition of gravity discharge, when coupled with the provisions of proposed § 817.41(i)(2) for drift mines, would defeat the intent of the Act to protect against discharges from iron- or acid-bearing seams.

OSM does not agree with the conclusion reached by this commenter with respect to drift mines. Section 516(b)(12) of the Act requires that openings for all new drift mines be located to prevent a gravity discharge of water if the mine is located on an acid- or iron-producing seam. The definition for "gravity discharge" is in accord with the requirements of section 516(b)(12). This definition is discussed earlier in this preamble and, together with the requirements of this section, will provide the protection intended by Congress.

Two commenters recommended deleting proposed paragraph (i)(1) because in their opinion section 516(b)(12) of the Act did not authorize such regulation.

OSM disagrees with this assessment of its statutory authority. Section 516(b)(9) of the Act outlines what steps mine operators must take to minimize disturbance to the hydrologic balance including avoiding acid or other toxic mine drainage. Regulating all gravity discharges from underground mines comes within the scope of this statutory directive.

F. Diversions (Sections 816.43 and 817.43)

The material covered in final §§ 816.43 and 817.43 for diversions appeared as §§ 816.41(f) and 817.41(f) in the proposed rules. The final rules for diversions have been adopted basically as proposed except as discussed below. Because the performance standards for diversion of intermittent and perennial streams and miscellaneous flows are identical except for two requirements, the rule has been restructured to reflect the similarities and to eliminate redundancy. Other minor language changes were also made for purposes of clarity.

In accord with the combination of previous §§ 816.43 and 816.44 and 817.43 and 817.44 into final §§ 816.43 and 817.43, respectively, the final rule also corrects the citations to these sections in §§ 780.29 and 784.22 of the permitting rules. § 784.22 is also renumbered as § 784.29. No substantive change is intended by these revisions.

Sections 816.43(a) and 817.43(a) General requirements.

Under paragraph (a)(1) a regulatory authority may approve the diversion from disturbed areas, by means of temporary or permanent diversion, of any flow from a mined area abandoned prior to May 3, 1978, and any flow from undisturbed or reclaimed areas after meeting the criteria of § 616.46 for siltation-structure removal. To grant approval, a regulatory authority must find that the diversion is designed to minimize adverse impacts to the hydrologic balance within the permit area, to prevent material damage to the hydrologic balance outside the permit area, and to assure the safety of the public. Diversions may not be used to divert water into underground mines unless the regulatory authority approves such action in accordance with § 816.41(i).

The final rule revises the proposal to be in accord with the final definitions of permit area and adjacent area and the rule establishing requirements for sedimentation ponds.

Paragraph (a)(2) requires that the design, location, construction, maintenance, and use of the diversion and its appurtenant structures will ensure stability; provide protection against flooding and resultant damage to life and property; prevent additional contributions of suspended solids to streamflow outside the permit area; and comply with applicable Federal, State, and local regulations.

Final § 816.43(a)(3) provides that when no longer needed, temporary diversions must be removed and the disturbed land restored in accordance with the requirements of Part 816. Prior to removing a temporary diversion, the operator must remove or modify, as necessary, downstream water-treatment facilities that would be adversely affected. This requirement will not alter the operator's responsibility to maintain required water-treatment facilities.

The design and construction of a permanent diversion and the reclamation of a stream after removal of a temporary diversion must restore or approximate the premining

characteristics of the original stream and the natural riparian vegetation so as to promote the recovery and enhancement of the aquatic habitat.

The regulatory authority may specify additional design criteria for diversions.

Two commenters noted that unlike the prior rules at § 816.44(d)(1), proposed paragraph (f)(1)(iv) did not call for the consideration of restoring riparian habitat during construction of permanent diversions and stream channels following removal of temporary diversions. They feared that this would lead to potentially significant impacts on riparian ecosystems and the esthetic quality of natural streams. OSM accepts this comment and has revised the rule accordingly.

Several commenters expressed concern with how the proposed rules dealt with assurances for the recovery of aquatic habitat. One thought that simply to augment the recovery and enhancement of aquatic habitat would result in significant environmental damage. Another thought the aquatic habitat requirements should not be applied to ephemeral streams as it was doubtful that such habitat existed on ephemeral streams in arid or semi-arid regions. Other commenters thought the recovery standard should be to minimize disturbance of the hydrologic balance and enhance the aquatic habitat where practical. They thought that such a standard would be more in line with section 515(b)(24) of the Act.

OSM's objective in paragraph (a)(3) is to achieve a condition after mining at least as good as the original condition. The requirements adopted will achieve this objective and at the same time will provide the operator with sufficient flexibility. Additionally, OSM disagrees with the commenters' characterization of the intent of section 515(b)(24) of the Act. That section calls for minimizing adverse impacts of fish, wildlife, and related environmental values to the extent possible using the best technology currently available and "enhancement of such resources where practicable." The language in the final rule allows operators to make technical innovations and improvements to achieve these goals without specifying all aspects of stream channel reconstruction.

One commenter argued that in the semi-arid West, restoring the erosional balance of the reconstructed stream was more important to successful reclamation than restoring aquatic habitat. He suggested including the requirement to restore or augment the natural erosional balance of the original stream channel.

Although OSM agrees that erosional balance is an important aspect of stream channel reconstruction, it is not of nationwide applicability. Moreover, because the erosional balance is not usually known and because land disturbances during the operations alter the characteristics of the materials used in reclamation, restoring the original erosional balance may be unwise or impossible. Section 816.95(a) of the final rules calls for stabilization of all surface areas to control erosion. This requirement would apply in the situation described by the commenter.

One commenter suggested deleting the provision authorizing the regulatory authority to specify design criteria. The commenter thought that the statement was unnecessary as the regulatory authority could reject any design not conforming to established criteria.

OSM rejects this comment. The final rules generally do not specify design criteria. They authorize the regulatory authority to prescribe criteria if requested to do so or if it considers such action necessary. For a further discussion related to design criteria, the reader is referred to OSM's "Final Environmental Impact Statement OSM-EIS-1: Supplement."

Two commenters objected to the language of the proposal giving regulatory authorities discretion to set design criteria. One of them seemed to suggest that the authority to specify design criteria be limited to case-by-case situations at the request of operators.

This approach would be impractical. The rules provide that the regulatory authority may, if it chooses, specify and publish design criteria for diversions. Such criteria would be available to all mine operators within the jurisdiction of the regulatory authority, and each mine operator would have to comply.

One commenter viewed OSM's decision not to include restrictions on locations, sediment control measures, and design of the diversion as being unhelpful to first-time applicants when they prepared a permit application and to regulatory authorities when they reviewed and approved such applications.

Setting nationwide design criteria with respect to location, sediment control measures, etc., is unnecessary. These criteria should be known by qualified registered professional engineers who specialize in mining and reclamation operations. The final rules provide for professional engineers to certify the design and construction of the stream channel diversions and provide regulatory authorities the discretion to develop detailed design, construction, and maintenance standards for diversion structures.

Sections 816.43(b) and 817.43(b) Diversion of perennial and intermittent streams.

In addition to the general requirements of paragraph (a), paragraph (b) sets the performance standards for the diversion of perennial and intermittent streams within the permit area. Diversions may be approved by the regulatory authority after finding that they will comply with findings in 30 CFR 816.57 related to stream buffer zones that there will be no adverse effect on water quantity and quality and related environmental resources of the stream.

The design capacity of channels for temporary and permanent diversions of perennial and intermittent streams must be at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion. The requirement for a diversion to provide protection against flooding, as set forth at § 816.43(a)(2)(ii), will be met if the diversion is designed so that the combination of channel, bank, and flood-plain configuration is adequate to pass safely the peak runoff of a 10-year, 6-hour precipitation event for a temporary diversion and a 100-year, 6-hour precipitation event for a permanent diversion.

OSM modified the proposed design criteria by substituting a 6-hour precipitation event for a 24-hour storm event. This change makes the diversion rules consistent with the rules for sedimentation ponds, § 816.46(b), and permanent and temporary impoundments, § 816.49. The rationale for the change in the design criteria is based on the following analysis.

The storm design event being adopted is consistent with the criteria of the Mine Safety and Health Administration (MSHA) published as "Design Guidelines for Coal Refuse Piles and Water, Sediment, or Slurry Impoundments and Impoundment Structures" (IR 1109). OSM recognizes that for some basins, depending on location, the 24-hour duration storm may result in a runoff volume somewhat higher than the 6-hour storm for the same area (See 44 FR 15207). However, for most mining situations, a 6-hour event is more likely to result in a higher peak flow. For a given storm frequency, the time of concentration and watershed shape can be more influential in determining the peak flow than the storm duration. Therefore, in most cases the differences in any increased volume of peak flows will be minor from a

practical design and construction standpoint. Any computed increase in peak flow volume would most likely not result in any significant change in flow depth or flow velocities and, correspondingly, any alteration in drainage channel design.

A qualified registered professional must certify stream channel diversion design, construction, and maintenance of diversions and their appurtenant structures as conforming to the performance standards of Part 816 and any design criteria set by the regulatory authority.

Two commenters endorsed proposed paragraph (f)(1)(ii), which keyed the capacity of the diversion to the capacity of the natural stream rather than national design standards.

Based on field experience, OSM believes that it is technically sound and environmentally safe to require that the flow carrying capacity of a stream channel diversion be equal to that of the undiverted channel. Therefore, OSM has given more discretion to the regulatory authority to prescribe requirements suited to local geographical and meteorological conditions.

One commenter took issue with OSM's reasons as expressed in the preamble to the proposed rule (47 FR 27723) for not establishing national standards for diversion capacity. The commenter asserted that a diversion with a larger capacity than that of the natural stream channel would prevent some overtopping and would help to prevent sediment contributions downstream during non-flood periods.

While diversion capacities larger than the natural stream's capacity may prevent some overtopping, nevertheless, size alone does not provide any guarantees for meeting these problems. Moreover, the land disturbance associated with construction and removal of larger diversions could very well nullify any benefits from their greater capacities. The rules fully meet the environmental protection provisions of the Act in a feasible and cost effective manner.

Some commenters objected to requiring the supervision of a registered professional engineer over the design, construction, and maintenance of diversions. The commenter thought that the requirement did not contribute to environmental protection or coal development in any significant manner. Also because little guidance in selecting the appropriate design was provided, the requirement would result in delay and costly design changes at the time of permit review.

Section 102(a) of the Act declares that one of its purposes is "* * * to protect society and the environment from the adverse effects of surface coal mining operations." The requirement for the certification of the design and construction of stream channel diversions by a registered professional engineer is in accord with section 515(a) of the Act and will help achieve this goal. However, OSM agrees that requiring engineer certification of routine maintenance of stream channels and designs of diversions of miscellaneous flows may not be necessary. The final rule is thus changed accordingly so that the certification requirement applies only to the design and construction of perennial or intermittent streams.

Sections 816.43(c) and 817.43(c) Diversions of miscellaneous flows.

Paragraph (c) provides standards for the diversion of miscellaneous flows. The final rule is based on the language appearing in proposed § 816.41(f)(2). Paragraph (c)(1) clarifies what OSM means by the term "miscellaneous flows."

The performance standards of paragraph (c)(2), for diversions of miscellaneous flows, are the same as those for perennial and intermittent streams with certain exceptions. When reviewing the proposed diversion, the regulatory authority need not make the finding concerning stream buffer zones since these are not applicable to miscellaneous flows. In addition, the design storm events for temporary and permanent diversions of miscellaneous flows are a 2-year, 6-hour precipitation event, and a 10-year, 6-hour precipitation event, respectively, rather than 10- and 100-year events. Further, as stated above, there is no requirements for professional engineer certification of the design and construction for diversion of miscellaneous flows.

One commenter thought that the proposed rule for miscellaneous flow concerning the application of the best technology currently available to prevent additional contributions of suspended solids to streamflows outside the permit area should be revised to take into account the water quality of the ultimate receiving stream.

OSM rejects this suggestion. The requirement is derived from section 515(b)(10) of the Act and the statutory language is included verbatim in § 816.43.

One commenter thought that a mine operator should be able to divert any flow if it came from upstream areas that he or she had not disturbed. The commenter objected to the requirement to obtain the prior approval of the regulatory authority.

OSM considers that prior regulatory authority approval of diversions of flow is appropriate because unregulated diversions could lead to environmental damage, unsafe conditions, and disruption of the hydrologic balance. This approval may be granted as part of the permitting process.

Another commenter objected to OSM not providing specific reasons for allowing diversions of overland flows as was the case in the previous rule (§ 816.43). The commenter believed that by allowing diversion of all flows, without the limitations listed at that section, the task of the regulatory authority would be more difficult.

OSM discussed the reason for allowing diversions of any flow, including those from abandoned or undisturbed areas or reclaimed areas, in the preamble to the proposed rules. (47 FR 27723, June 25, 1982). The language of previous §§ 816.43 and 816.44 led to confusion as to when diversions would be approved or required and what elements of the performance standards applied to miscellaneous flows as opposed to perennial and intermittent flows. The final rule adopts the provision that the regulatory authority may require, as well as approve, diversions of miscellaneous flows. This authorization was inadvertently left out of the proposed rule. Changes made between the previous and final rules are intended to provide additional flexibility in allowing diversion of miscellaneous flows.

It is not possible to categorically list all situations where it may be environmentally desirable to divert such flows. For instance, it may be necessary to divert miscellaneous flows to prevent infiltration into spoils and protect the stability of fills or backfilled areas. The previous rule could have prohibited such diversions. The final rules provide the regulatory authority with sufficient authority to address environmental concerns with respect to miscellaneous flows without necessitating the listing of limitations as previously was the case.

One commenter was concerned that an operator could be released from the requirement to make miscellaneous diversions at least as large as the natural stream channel, should design values for handling flood flows of proposed paragraph (f)(2)(iii) prove to be smaller. The commenter thought that diversions of miscellaneous flows should have the capacity of the stream channel in all cases. Two other commenters suggested adding language regarding the proper sizing of channels for temporary and permanent diversion of miscellaneous flows, when no defined

stream channel existed. Under such conditions, they thought that the rule should provide: "The diversion shall be capable of conveying the flow from the design precipitation event."

OSM agrees that for intermittent and perennial streams, keying the size of the diversion channel to the natural stream channel is appropriate. Such a requirement is included in final paragraph (b)(2). However, for miscellaneous flows, natural stream channels are often non-existent or irrelevant to the purposes of the diversion or to the size requirements for diversion safety. Safety is provided by specifying the design precipitation event for the combination of the channel, bank, and flood plain configuration. The final rule leaves flexibility to the operator and regulatory authority with respect to the precise channel size requirements for miscellaneous flow diversions provided the general requirements of paragraph (a) are met.

Cross-referencing

In a number of places in the final rule and preamble, OSM has cross-referenced other OSM rules, some of which have been proposed for revision and may not yet be finalized. If such rules are not finalized or are revised from those versions expected to be issued in the near future, conforming technical amendments may be necessary.

IV. Procedural Matters

Executive Order 12291

The Department of the Interior (DOI) has examined these proposed rules according to the criteria of Executive Order 12291 (February 17, 1981). OSM has determined that these are not major rules and do not require a regulatory impact analysis because they will impose only minor costs on the coal industry, coal consumers, and the public. In addition, the proposed rules emphasize the use of performance standards instead of design criteria, which will allow operators to utilize the most cost-effective means of achieving the performance standards.

Agency Approval

Section 516(a) of the Act requires that, with regard to rules directed toward the surface effects of underground mining, OSM must obtain written concurrence from the head of the department which administers the Federal Mine Safety and Health Act of 1977. OSM has obtained the written concurrence of the Assistant Secretary for Mine Safety and Health, U.S. Department of Labor.

Under section 501(a)(B) of the Act the Secretary may not promulgate and publish regulations relating to water quality standards promulgated under the authority of the Federal Water Pollution Control Act, as amended 33 U.S.C. 1151–1175, until he has obtained the written concurrence of the Administrator of the Environmental Protection Agency (EPA). The written concurrence has been received with respect to these rules.

Regulatory Flexibility Act

The DOI has also determined, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, that these rules will not have significant economic impact on a substantial number of small entities. The proposed rules will allow small coal operators increased flexibility in meeting performance standards and should especially ease the regulatory burden on small coal operators in Appalachia.

Federal Paperwork Reduction Act

In accordance with the Federal Paperwork Reduction Act of 1980 (Pub. L. 96–511; 44 U.S.C. 3507), the information requirements in Parts 780, 784, 816, and 817 were approved by the Office of Management and Budget (OMB) and assigned clearance numbers 1029–0036, 1029–0039, 1029–0047, and 1029–0048, respectively. These approvals were codified under new sections in each of those parts that contain information collection requirements. The information required in these sections will be used by the regulatory authority to assess the impact of the proposed mining operation on the hydrologic balance of the permit and adjacent areas and cumulative impacts in the cumulative impact area. Submission of such information is mandatory.

National Environmental Policy Act

OSM has analyzed the impacts of these final rules in the "Final Environmental Impact Statement OSM EIS–1: Supplement" (FEIS) according to Section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4332(2)(C)). The FEIS is available in OSM's Administrative Record in Room 5315, 1100 L Street, NW., Washington, D.C., or by mail request to Mark Boster, Chief, Branch of Environmental Analysis, Room 134, Interior South Building, U.S. Department of the Interior, Washington, DC 20240. This preamble serves as the record of decision under NEPA. The following substantive differences are noted between these final rules and the preferred alternative set forth in Volume III of the FEIS. Unless otherwise indicated the changes or additions have resulted in a rule that is the same as or more environmentally protective than the FEIS preferred alternative.

1. The final definition for "cumulative impact area," appearing at § 701.5, differs from the preferred alternative primarily in its listing of activities that, at a minimum, constitute "anticipated mining." The list is more extensive than the preferred alternative.

2. Final §§ 780.21(a) and 784.14(a) deal only with sampling and analysis techniques. References to use of the data to be collected have been moved to later paragraphs.

3. Final §§ 780.21(b) and 784.14(b) require more baseline information for surface- and ground-water resources than the preferred alternative.

4. Final §§ 780.21(f) and 784.14(e) specifically list required minimum findings and note that applications for a revision will be reviewed by the regulatory authority to decide whether a new or updated PHC determination will be required.

5. Final §§ 780.21(g) and 784.14(f) note that an application for a permit revision will be reviewed by the regulatory authority to decide whether a new or updated CHIA will be required.

6. Final §§ 780.21(h) and 784.14(g) have more extensive requirements for the reclamation plan to protect the hydrologic balance than the preferred alternative.

7. Final §§ 780.21(i) and 784.14(h) narrow the scope of the possible exemption to the monitoring of ground water which would have been available under the preferred alternative.

8. Final §§ 780.22(a) and 784.22(a) provide a more extensive and clearer list of the uses for which the geologic data is to be collected than the preferred alternative.

9. Final §§ 780.22(b) and 784.22(b) require the collection, analysis and description of more geologic information and more clearly state the depth of the data collection than the preferred alternative.

10. Final §§ 780.22(c) and 784.22(c) specify the bases for the regulatory authority to require the collection, analysis and description of geologic information in addition to that required by paragraph (b). While the language of the preferred alternative was more open-ended, the bases listed in the final rules cover the principal environmental concerns for which the additional data would be needed.

11. Final §§ 816.41(a) and 817.41(a) are broader in their statement of how surface mining activities are to be conducted to protect the hydrologic balance.

12 Final §§ 816 41(b)(2) and 817 41(b)(2) require the handling of earth materials and runoff in a manner to restore the approximate premining recharge capacity rather than premining water availability This was part of the no action/minimum action alternative in the FEIS

13 Final §§ 816 41 (c) and (e) and 817 41 (c) and (e) specify what the operator must do if ground-water monitoring indicates noncompliance with permit conditions Modifications of monitoring requirements shall be treated like permit revisions The demonstration which an operator must make to obtain a modification in the monitoring requirements has been slightly broadened from that in the FEIS

14 Final §§ 816 41(d) and 817 41(d) have increased the surface-water protection efforts an operator shall take when conducting surface mining activities

15 Final §§ 816 41(g) and 817 41(g) require that a permittee shall remain responsible for the proper management of wells until bond release even though the ownership of the well has been transferred to another party

16 Final § 816.41(h) does not specify as does the preferred alternative, that the water being replaced shall be of equal or better quality and quantity than the pre affected supply Instead the final rule requires replacement of the water supply adversely affected by the surface mining activity This is equally as environmentally protective as the preferred alternative because as described earlier in this preamble the concept of replacement includes restoration of both quality and quantity

17 Final §§ 816 41(i) and 817 41(h) add that discharges into an underground mine must prevent material damage outside the permit area

18 Final §§ 816 43 and 817 43 add that diversions must be designed to prevent material damage to the hydrologic balance Diversions of miscellaneous flows need not be designed constructed or maintained under the direction of a registered professional engineer This is consistent with Alternative B in the FEIS

List of Subjects

30 CFR Part 701

Coal mining, Law enforcement, Surface mining, Underground mining

30 CFR Parts 779 and 816

Coal mining, Environmental protection Reporting and recordkeeping requirements, Surface mining

30 CFR Part 780

Coal mining, Incorporation by reference, Reporting and recordkeeping requirements, Surface mining

30 CFR Parts 783 and 817

Coal mining, Environmental protection, Reporting and recordkeeping requirements, Underground mining

30 CFR Part 784

Coal mining, Incorporation by reference Reporting and recordkeeping requirements, Underground mining

Accordingly 30 CFR Parts 701, 779, 780, 783, 784, 816, and 817 are amended as set forth herein

Dated September 15 1983

Joy R Gwaltney,

Acting Deputy Assistant Secretary Energy and Minerals

PART 701—PERMANENT REGULATORY PROGRAM

1 Section 701 5 is amended by adding the following definitions in alphabetical order

§ 701 5 Definitions.

* * * * *

Cumulative impact area means the area, including the permit area, within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface- and ground-water systems Anticipated mining shall include, at a minimum, the entire projected lives through bond release of (a) The proposed operation, (b) all existing operations, (c) any operation for which a permit application has been submitted to the regulatory authority and (d) all operations required to meet diligent development requirements for leased Federal coal for which there is actual mine development information available

* * * * *

Gravity discharge means, with respect to underground mining activities mine drainage that flows freely in an open channel downgradient Mine drainage that occurs as a result of flooding a mine to the level of the discharge is not gravity discharge

* * * * *

PART 779—SURFACE MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENTS FOR INFORMATION ON ENVIRONMENTAL RESOURCES

§§ 779 13, 779.14, 779 15, 779 16 and 779 17 [Removed]

2 Sections 779 13, 779 14, 779 15, 779 16 and 779 17 are removed

PART 780—SURFACE MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN

3 Section § 780 21 is revised to read as follows

§ 780 21 Hydrologic information.

(a) *Sampling and analysis methodology* All water-quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR Parts 136 and 434 Water quality sampling performed to meet the requirements of this section shall be conducted according to either methodology listed above when feasible "Standard Methods for the Examination of Water and Wastewater " is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 15th Street, NW Washington, DC 20036 This document is also available for inspection at the Office of the Federal Register Information Center Room 8301, 1100 L Street, NW , Washington, D.C , at the Office of the OSM Administrative Record, U S Department of the Interior, Room 5315, 1100 L Street, NW , Washington, D C , at the OSM Eastern Technical Service Center U S Department of the Interior, Building 10, Parkway Center, Pittsburgh, Pa , and at the OSM Western Technical Service Center, U S. Department of the Interior Brooks Tower 1020 15th Street Denver Colo This incorporation by reference was approved by the Director of the Federal Register on October 26, 1983 This document is incorporated as it exists on the date of the approval and a notice of any change in it will be published in the **Federal Register.**

(b) *Baseline information* The application shall include the following baseline hydrologic information, and any additional information required by the regulatory authority

(1) *Ground-water information* The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground water resources seasonal quality and quantity of ground water and usage Water quality descriptions shall include, at a minimum total dissolved solids or specific conductance corrected to 25°C, pH total iron, and total manganese

Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water bearing stratum above and potentially impacted stratum below the coal seam

(2) *Surface water information* The name, location, ownership and description of all surface-water bodies such as streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage Water quality descriptions shall include, at a minimum, baseline information on total suspended solids total dissolved solids or specific conductance corrected to 25°C pH, total iron, and total manganese Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation Water quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates

(3) *Supplemental information* If the determination of the probable hydrologic consequences (PHC) required by paragraph (f) of this section indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground water or surface-water supplies, then information supplemental to that required under paragraphs (b)(1) and (b)(2) of this section shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata flood flows or analysis of other water quality or quantity characteristics

(c) *Baseline cumulative impact area information* (1) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface- and ground-water systems as required by paragraph (g) of this section shall be provided to the regulatory authority if available from appropriate Federal or State agencies

(2) If the information is not available from such agencies, then the applicant may gather and submit this information to the regulatory authority as part of the permit application

(3) The permit shall not be approved until the necessary hydrologic and geologic information is available to the regulatory authority

(d) *Modeling* The use of modeling techniques, interpolation or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required by the regulatory authority for each site even when such techniques are used

(e) *Alternative water source information* If the PHC determination required by paragraph (f) of this section indicates that the proposed mining operation may proximately result in contamination, diminution, or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural industrial or other legitimate purpose then the application shall contain information on water availability and alternative water sources, including the suitability of alternative water sources for existing premining uses and approved postmining land uses

(f) *Probable hydrologic consequences determination* (1) The application shall contain a determination of the probable hydrologic consequences (PHC) of the proposed operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas

(2) The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site,

(3) The PHC determination shall include findings on

(i) Whether adverse impacts may occur to the hydrologic balance,

(ii) Whether acid forming or toxic-forming materials are present that could result in the contamination of surface or ground-water supplies,

(iii) Whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural industrial, or other legitimate purpose, and

(iv) What impact the proposed operation will have on

(A) Sediment yield from the disturbed area (B) acidity, total suspended and dissolved solids and other important water quality parameters of local impact (C) flooding or streamflow alteration, (D) ground-water and surface water availability and, (E) other characteristics as required by the regulatory authority

(4) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated PHC determination shall be required

(g) *Cumulative hydrologic impact assessment* (1) The regulatory authority shall provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground water systems in the cumulative impact area The CHIA shall be sufficient to determine for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area The regulatory authority may allow the applicant to submit data and analyses relevant to the CHIA with the permit application

(2) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated CHIA shall be required

(h) *Hydrologic reclamation plan* The application shall include a plan, with maps and descriptions, indicating how the relevant requirements of Part 816, including §§ 816 41 to 816 43, will be met The plan shall be specific to the local hydrologic conditions It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbances to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area, to meet applicable Federal and State water quality laws and regulations; and to protect the rights of present water users The plan shall include the measures to be taken to Avoid acid or toxic drainage, prevent, to the extent possible using the best technology currently available additional contributions of suspended solids to streamflow, provide water treatment facilities when needed, control drainage, restore approximate premining recharge capacity and protect or replace rights of present water users The plan shall specifically address and potential adverse hydrologic consequences identified in the PHC determination prepared under paragraph (f) of this section and shall include preventive and remedial measures

(i) *Ground-water monitoring plan* (1) The application shall include a ground-water monitoring plan based upon the PHC determination required under paragraph (f) of this section and the analysis of all baseline hydrologic, geologic and other information in the permit application The plan shall provide for the monitoring of parameters

that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (h) of this section. It shall identify the quantity and quality parameters to be monitored, sampling frequency, and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, and water levels shall be monitored and data submitted to the regulatory authority at least every 3 months for each monitoring location. The regulatory authority may require additional monitoring.

(2) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the regulatory authority.

(j) *Surface-water monitoring plan.* (1) The application shall include a surface-water monitoring plan based upon the PHC determination required under paragraph (f) of this section and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmined land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (h) of this section as well as the effluent limitations found at 40 CFR Part 434.

(2) The plan shall identify the surface-water quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

(i) At all monitoring locations in the surface-water bodies such as streams, lakes, and impoundments, that are potentially impacted or into which water will be discharged and at upstream monitoring locations the total dissolved solids or specific conductance corrected to 25°C, total suspended solids, pH, total iron, total manganese, and flow shall be monitored.

(ii) For point-source discharges, monitoring shall be conducted in accordance with 40 CFR Parts 122, 123 and 434 and as required by the National Pollutant Discharge Elimination System permitting authority.

(3) The monitoring reports shall be submitted to the regulatory authority every 3 months. The regulatory authority may require additional monitoring.

4. Section 780.22 is added to read as follow:

§ 780.22 Geologic information.

(a) *General.* Each application shall include geologic information in sufficient detail to assist in determining—

(1) The probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary;

(2) All potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined; and

(3) Whether reclamation as required by this chapter can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

(b) Geologic information shall include, at a minimum the following:

(1) A description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The description shall include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters. It shall be based on—

(i) The cross sections, maps and plans required by § 779.25 of this chapter;

(ii) The information obtained under paragraphs (b)(2) and (c) of this section; and

(iii) Geologic literature and practices.

(2) Analyses of samples collected from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops from the permit area, down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(i) Logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;

(ii) Chemical analyses identifying those strata that may contain acid- or toxic-forming or alkalinity-producing materials and to determine their content except that the regulatory authority may find that the analysis for alkalinity-producing materials is unnecessary; and

(iii) Chemical analyses of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the regulatory authority may find that the analysis of pyritic sulfur content is unnecessary.

(c) If determined to be necessary to protect the hydrologic balance or to meet the performance standards of this chapter, the regulatory authority may require the collection, analysis, and description of geologic information in addition to that required by paragraph (b) of this section.

(d) An applicant may request the regulatory authority to waive in whole or in part the requirements of paragraph (b)(2) of this section. The waiver may be granted only if the regulatory authority finds in writing that the collection and analysis of such data is unnecessary because other equivalent information is available to the regulatory authority in a satisfactory form.

§ 780.29 [Amended]

5. Section 780.29 is amended by replacing the reference "30 CFR 816.43-816.44" with the reference "§ 816.43 of this chapter."

PART 783—UNDERGROUND MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENTS FOR INFORMATION ON ENVIRONMENTAL RESOURCES

§§ 783.13, 783.14, 783.15, 783.16 and 783.17 [Removed]

6. Sections 783.13, 783.14, 783.15, 783.16 and 783.17 are removed.

PART 784—UNDERGROUND MINING PERMIT APPLICATIONS—MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN

7. Section 784.14 is revised to read as follows:

§ 784.14 Hydrologic information.

(a) *Sampling and analysis.* All water quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR Parts 136 and 434. Water quality sampling performed to meet the

requirements of this section shall be conducted according to either methodology listed above when feasible. "Standard Methods for the Examination of Water and Wastewater," is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 Fifteenth Street, NW., Washington, DC 20036. This document is also available for inspection at the Office of the Federal Register Information Center, Room 8301, 1100 L Street, NW., Washington, D.C.; at the Office of the OSM Administrative Record, U.S. Department of the Interior, Room 5315, 1100 L Street, NW., Washington, D.C.; at the OSM Eastern Technical Service Center, U.S. Department of the Interior, Building 10, Parkway Center, Pittsburgh, Pa.; and at the OSM Western Technical Service Center, U.S. Department of the Interior, Brooks Tower, 1020 15th Street, Denver, Colo. This incorporation by reference was approved by the Director of the Federal Register on October 26, 1983. This document is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the Federal Register.

(b) *Baseline information.* The application shall include the following baseline hydrologic information, and any additional information required by the regulatory authority.

(1) *Ground-Water information.* The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.

(2) *Surface-water information.* The name, location, ownership and description of all surface-water bodies such as streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water quality descriptions shall include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, and total manganese. Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation. Water quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates.

(3) *Supplemental information.* If the determination of the probable hydrologic consequences (PHC) required by paragraph (e) of this section indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under paragraphs (b)(1) and (b)(2) of this section shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analysis of other water quality or quantity characteristics.

(c) *Baseline cumulative impact area information.* (1) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface- and ground-water systems as required by paragraph (f) of this section shall be provided to the regulatory authority if available from appropriate Federal or State agencies.

(2) If this information is not available from such agencies, then the applicant may gather and submit this information to the regulatory authority as part of the permit application.

(3) The permit shall not be approved until the necessary hydrologic and geologic information is available to the regulatory authority.

(d) *Modeling.* The use of modeling techniques, interpolation or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required by the regulatory authority for each site even when such techniques are used.

(e) *Probable hydrologic consequences determination.* (1) The application shall contain a determination of the probable hydrologic consequences (PHC) of the proposed operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

(2) The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site.

(3) The PHC determination shall include findings on:

(i) Whether adverse impacts may occur to the hydrologic balance;

(ii) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface- or ground-water supplies; and

(iii) What impact the proposed operation will have on:

(A) Sediment yield from the disturbed area; (B) acidity, total suspended and dissolved solids, and other important water quality parameters of local impact; (C) flooding or streamflow alteration; (D) ground-water and surface-water availability; and, (E) other characteristics as required by the regulatory authority.

(4) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated PHC determination shall be required.

(f) *Cumulative hydrologic impact assessment.* (1) The regulatory authority shall provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area. The CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The regulatory authority may allow the applicant to submit data and analyses relevant to the CHIA with the permit application.

(2) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated CHIA shall be required.

(g) *Hydrologic reclamation plan.* The application shall include a plan, with maps and descriptions, indicating how the relevant requirements of Part 817, including §§ 817.41 to 817.43, will be met. The plan shall be specific to the local hydrologic conditions. It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbance to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; and to meet applicable Federal and State water quality laws and regulations. The plan shall include the measures to be taken to: avoid acid or toxic drainage; prevent

to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water-treatment facilities when needed; control drainage; and restore approximate premining recharge capacity. The plan shall specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under paragraph (e) of this section and shall include preventive and remedial measures.

(h) *Ground-water monitoring plan.* (1) The application shall include a ground-water monitoring plan based upon the PHC determination required under paragraph (e) of this section and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (g) of this section. It shall identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, and water levels shall be monitored and data submitted to the regulatory authority at least every 3 months for each monitoring location. The regulatory authority may require additional monitoring.

(2) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the regulatory authority.

(i) *Surface-water monitoring plan.* (1) The application shall include a surface-water monitoring plan based upon the PHC determination required under paragraph (e) of this section and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (g) of this section as well as the effluent limitations found at 40 CFR Part 434.

(2) The plan shall identify the surface-water quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

(i) At all monitoring locations in streams, lakes, and impoundments, that are potentially impacted or into which water will be discharged and at upstream monitoring locations, the total dissolved solids or specific conductance corrected at 25°C, total suspended solids, pH, total iron, total manganese, and flow shall be monitored.

(ii) For point-source discharges, monitoring shall be conducted in accordance with 40 CFR Parts 122, 123 and 434 and as required by the National Pollutant Discharge Elimination System permitting authority.

(3) The monitoring reports shall be submitted to the regulatory authority every 3 months. The regulatory authority may require additional monitoring.

§ 784.22 [Redesignated as § 784.29 and amended].

8. Section 784.22 is redesignated as § 784.29 and amended by replacing the reference "§§ 817.43–817.44" with the reference "§ 817.43 of this chapter."

9. A new § 784.22 is added to read as follows:

§ 784.22 Geologic information.

(a) *General.* Each application shall include geologic information in sufficient detail to assist in—

(1) Determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary;

(2) Determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the coal seam to be mined;

(3) Determining whether reclamation as required by this chapter can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and

(4) Preparing the subsidence control plan under § 784.20.

(b) Geologic information shall include, at a minimum, the following:

(1) A description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. This description shall include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and it shall also show how the areal and structural geology may affect the occurrence, availability, movement, quantity and quality of potentially impacted surface and ground water. It shall be based on—

(i) The cross sections, maps, and plans required by § 783.25 of this chapter;

(ii) The information obtained under paragraphs (b)(2), (b)(3), and (c) of this section; and

(iii) Geologic literature and practices.

(2) For any portion of a permit area in which the strata down to the coal seam to be mined will be removed or are already exposed, samples shall be collected and analyzed from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(i) Logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;

(ii) Chemical analyses identifying those strata that may contain acid- or toxic-forming, or alkalinity-producing materials and to determine their content except that the regulatory authority may find that the analysis for alkalinity-producing material is unnecessary; and

(iii) Chemical analysis of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the regulatory authority may find that the analysis of pyritic sulfur content is unnecessary.

(3) For lands within the permit and adjacent areas where the strata above the coal seam to be mined will not be removed, samples shall be collected and analyzed from test borings or drill cores to provide the following data:

(i) Logs of drill holes showing the lithologic characteristics, including physical properties and thickness of each stratum that may be impacted, and location of ground water where occuring;

(ii) Chemical analyses for acid- or toxic-forming or alkalinity-producing materials and their content in the strata

Tab 13

regulations are necessary to provide clarity to parties engaging in reorganizations of insolvent corporations, both inside and outside of bankruptcy These final regulations affect corporations, their creditors, and their shareholders

DATES: *Effective Date* This correction is effective December 24, 2008, and is applicable on December 12 2008

FOR FURTHER INFORMATION CONTACT: Jean Brenner (202) 622–7790, Douglas Bates (202) 622–7550, or Bruce Decker (202) 622–7550 (not toll-free numbers)

SUPPLEMENTARY INFORMATION:

Background

The final regulations that are the subject of this document are under section 368 of the Internal Revenue Code

Need for Correction

As published, final regulations (TD 9434) contains an error that may prove to be misleading and is in need of clarification

Correction of Publication

Accordingly, the publication of the final regulations (TD 9434), which was the subject of FR Doc E8–29271, is corrected as follows

On page 75566, column 3, in the preamble, under the paragraph heading "Explanation of Provisions", second paragraph of the column, line 13, the language "amount of acquiring corporation stock" is corrected to read "amount of issuing corporation stock"

LaNita Van Dyke,

Chief Publications and Regulations Branch, Legal Processing Division Associate Chief Counsel (Procedure and Administration)

[FR Doc E8–30717 Filed 12–23–08 8 45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Part 948

[WV–112–FOR; OSM–2008–0024]

West Virginia Regulatory Program

AGENCY: Office of Surface Mining Reclamation and Enforcement (OSM), Interior

ACTION: Final rule, approval of amendment

SUMMARY: We are approving two proposed amendments to the West Virginia regulatory program related to the State's cumulative hydrologic impact assessment (CHIA) process and regarding material damage to the hydrologic balance The West Virginia Department of Environmental Protection (WVDEP) proposed to delete its existing definition of "cumulative impact " The WVDEP also proposed to amend its regulation outlining CHIA requirements by adding a sentence defining "material damage to the hydrologic balance outside the permit area " We are approving both proposed amendments

DATES: *Effective Date* December 24, 2008

FOR FURTHER INFORMATION CONTACT: Roger Calhoun, Director, Charleston Field Office, Office of Surface Mining, 1027 Virginia Street East, Charleston, West Virginia 25301 Telephone 304–347–7158, e-mail *rcalhoun@osmre gov*

SUPPLEMENTARY INFORMATION:

I. Background on the West Virginia Program

Section 503(a) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act), 30 U S C 1253(a), permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its program includes, among other things, "a State law which provides for the regulation of surface coal mining and reclamation operations in accordance with the requirements of the Act * * * and rules and regulations consistent with regulations issued by the Secretary pursuant to the Act " See 30 U S C 1253(a)(1) and (7) On the basis of these criteria, the Secretary of the Interior conditionally approved the West Virginia regulatory program on January 21, 1981 You can find background information on the West Virginia program, including the Secretary's findings, the disposition of comments, and conditions of approval in the January 21, 1981, **Federal Register** (46 FR 5915)

You can also find later actions concerning West Virginia's program and program amendments at 30 CFR 948 10, 948 12, 948 13, 948 15, and 948 16

II. Submission of the Amendments

A Previous Submittal of the Amendments

In 2001, West Virginia House Bill 2663 was enacted as State law which, among other things, deleted the definition of cumulative impact at West Virginia Code of State Regulations (CSR) 38–2–2 39 and added a sentence defining material damage to the hydrologic balance outside the permit area to CSR 38–2–3 22 e The latter provision contains CHIA requirements that WVDEP must follow when processing permit applications for surface coal mining operations By letter dated May 2, 2001, West Virginia submitted the proposed revisions as amendments to its permanent regulatory program (Administrative Record Number WV–1209) OSM approved both changes, along with several other proposed program amendments, on December 1, 2003 (68 FR 67035) (Administrative Record Number WV–1379)

On January 30, 2004, the Ohio River Valley Environmental Coalition, Inc , Hominy Creek Preservation Association, Inc , and the Citizens Coal Council filed a complaint and petition for judicial review of these two decisions with the United States District Court for the Southern District of West Virginia (Administrative Record Number WV–1382) On September 30, 2005, the United States District Court for the Southern District of West Virginia vacated both of OSM's decisions of December 1, 2003, at issue in the case and remanded the matter to the Secretary for further proceedings consistent with the court's decision *Ohio River Valley Environmental Coalition* v *Norton,* 2005 U S Dist LEXIS 22265 (S D W Va 2005) (Administrative Record Number WV–1439)

In response to the court s decision of September 30, 2005, OSM notified the State on November 1, 2005, that its definition of material damage was not approved and could not be implemented OSM also stated that the deletion of the definition of cumulative impact was not approved and directed the State to take action to add it back into the program On November 22, 2005, the United States District Court for the Southern District of West Virginia amended its earlier decision *Ohio River Valley Environmental Coalition* v *Norton,* No 3 04–0084 (S D W Va Nov 22 2005) (amended judgment order) In the amended decision, the court directed the Secretary to instruct the State that it may not implement the new language nor delete language from the State's program, and that the State must enforce only the State program approved by OSM prior to the amendments

By letter dated January 5, 2006, OSM notified the State that the court's amended judgment order makes it clear

that the definition of "cumulative impact" at CSR 38–2–2.39 remains part of the approved West Virginia program and must be implemented by the State, and that the definition of "material damage" is not approved and cannot be implemented (Administrative Record Number WV–1456).

On December 12, 2006, the U.S. Court of Appeals for the Fourth Circuit affirmed the District Court's ruling of September 30, 2005, to vacate and remand OSM's approval of West Virginia's amendments. *Ohio River Valley Environmental Coalition* v. *Kempthorne,* 473 F.3d 94 (4th Cir. 2006). (Administrative Record Number WV–1479). The court ruled that OSM's decisions on proposed State program amendments are subject to the rulemaking procedures set forth in Section 553 of the Administrative Procedures Act, 5 U.S.C. 553. The court also stated that OSM's failure to properly analyze and explain its decision to approve the State's program amendment rendered that action arbitrary and capricious.

In its decision, the U.S. Court of Appeals for the Fourth Circuit noted that OSM "based the decision to approve the deletion of the 'cumulative impact' definition exclusively on the absence of a corresponding definition in the Federal regulations, ignoring any actual effect the change might have on West Virginia's program." The court went on to state that "OSM acknowledged that the change may have weakened the program" but then failed to explain how such a change "is nevertheless consistent with SMCRA's *minimum requirements.*" The court then concluded that "SMCRA requires OSM to find not only that the amended program contains counterparts to all Federal regulations, but also that it is no less stringent than SMCRA and no less effective than the Federal regulations in meeting SMCRA's requirements." 473 F.3d at 103.

In addressing OSM's approval of the proposed addition of a sentence to the State's CHIA requirements that defined "material damage to the hydrologic balance outside the permit area", the court stated that "the added definition made West Virginia's proposed program different than the nationwide program. OSM's obligation is to analyze that different feature and explain whether and why the added provision renders the amended State program more, less, or equally effective compared to federal requirements. At a minimum, it must address the potential affect of the amendment on the State program and provide a reasoned analysis of its decision to approve it." *Id.*

It is with the guidance provided by the court in mind that OSM has conducted this review of these two proposed amendments.

B. Current Submittal of the Amendments

By letter dated March 22, 2007 (Administrative Record Number WV–1485), West Virginia re-submitted amendments to its program under SMCRA. The amendments propose to delete the definition of "cumulative impact," and to add a sentence defining "material damage to the hydrologic balance outside the permit area."

In its March 22, 2007, re-submittal letter, West Virginia provided a description of each of the proposed amendments, an explanation of why it considers its new material damage definition no less stringent than SMCRA, an explanation on the application of the material damage definition, a comparison of the material damage and cumulative impact definitions, and a discussion of the plaintiff's arguments in *OVEC* v. *Kempthorne, supra.* The letter concluded with a constitutional argument in support of approval. Enclosures to the letter included a copy of the State's Requirements Governing Water Quality Standards at 47 CSR 2 and a copy of the decision in *Ohio River Valley Environmental Coalition, Inc. (OVEC), et al.,* v. *Callaghan, et al., Civil Action No. 3:00–0058,* (S.D. W.Va. 2001). However, the letter made it clear that the enclosures were being supplied for informational purposes only and that West Virginia was not seeking OSM approval of the water quality standards document, which had been approved by the U.S. Environmental Protection Agency (EPA).

West Virginia proposed the following revisions to its approved regulatory program:

1. CSR 38–2–2.39 Definition of "cumulative impact"

The following definition is proposed for deletion from the West Virginia program: Cumulative impact means the hydrologic impact that results from the accumulation of flows from all coal mining sites to common channels or aquifers in a cumulative impact area. Individual mines within a given cumulative impact area may be in full compliance with effluent standards and all other regulatory requirements, but as a result of the co-mingling of their off-site flows, there is a cumulative impact. The Act does not prohibit cumulative impacts but does emphasize that they be minimized. When the magnitude of cumulative impact exceeds threshold limits or ranges as predetermined by the Division [WVDEP], they constitute material damage.

2. CSR 38–2–3.22.e Cumulative Hydrologic Impact Assessment

This existing provision, which contains the mandate for the WVDEP to prepare a CHIA for each permit application, is proposed to be revised by adding a new sentence that defines material damage to the hydrologic balance outside the permit area. The proposed sentence reads as follows:

Material damage to the hydrologic balance outside the permit area[s] means any long term or permanent change in the hydrologic balance caused by surface mining operation(s) which has a significant adverse impact on the capability of the affected water resource(s) to support existing conditions and uses.

As amended, CSR 38–2-3.22.e would read as follows:

The Director [Secretary] shall perform a separate CHIA for the cumulative impact area of each permit application. This evaluation shall be sufficient to determine whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. Material damage to the hydrologic balance outside the permit area[s] means any long term or permanent change in the hydrologic balance caused by surface mining operation(s) which has a significant adverse impact on the capability of the affected water resource(s) to support existing conditions and uses.

We announced receipt of West Virginia's proposed amendments in the May 17, 2007, **Federal Register** (72 FR 27782). In that notice, we opened the public comment period and provided an opportunity for a public hearing or meeting on the amendments. The May 17, 2007, proposed rule provides a background on previous submissions of this amendment as well as the current submission. The public comment period ended on June 18, 2007. We did not hold a public hearing or a public meeting because no one requested one.

We received written comments from Geo-Hydro, Inc., (Administrative Record Number WV–1496); a private citizen (Administrative Record Number WV–1498); a combined set of comments on behalf of the Hominy Creek Preservation Association, Inc., Ohio River Valley Environmental Coalition, Inc., and West Virginia Highlands Conservancy, Inc. (Administrative Record Number WV–1495). We also received comments from two Federal agencies: The United States Department of the Interior Fish and

Wildlife Service, West Virginia Field Office (Administrative Record Number WV–1491) and the United States Environmental Protection Agency, Region III (Administrative Record Number WV–1497)

III OSM's Findings

As noted by the Fourth Circuit "[r]eview of a State program amendment utilizes the same criteria applicable to approval or disapproval of a State program in the first instance 30 CFR 732 17(h)(10) " 473 F 3d at 98 Consequently, the Secretary must find the altered State program to be no less stringent than SMCRA and no less effective than the Federal regulations in meeting SMCRA's requirements in order to approve it Further the court made clear that in applying those standards, OSM must do more than simply compare whether State regulations still contain counterparts to relevant Federal requirements, (or, in the case of an addition, that there is no Federal counterpart and no other Federal requirements that would conflict with the proposed addition), but it also must examine how each proposed change would affect program implementation in order to determine that the program will remain no less effective than Federal regulations in meeting the requirements of SMCRA

A General Discussion—Prevention of Material Damage to the Hydrologic Balance Outside the Permit Area

Because each of the proposed amendments before us relate to the term "prevent material damage to the hydrologic balance outside the permit area", it is important to understand the context for that term in SMCRA and the Secretary s regulations in order to determine whether either or both of the amendments West Virginia has proposed will render its program less effective than Federal regulations This is particularly important in this case because of interpretations and positions presented by the plaintiffs in the prior litigation discussed above as well as comments on this rulemaking discussed below

The term "material damage to the hydrologic balance outside the permit area" occurs only once in SMCRA at Section 510(b)(3) which states "the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance specified in Section 507(b) has been made by the regulatory authority and the proposed operation thereof has been designed to prevent material damage to the hydrologic balance outside the permit area '

The same phrase occurs in four separate contexts in the Secretary's regulations for surface and underground mining operations The first, as in SMCRA, is in the context of a written finding that the regulatory authority perform an assessment and determine that ' the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area" as required by 30 CFR 773 15(e) In addition, a finding is required by the regulatory authority as contained in 30 CFR 780 21(g) and 784 14(f), which states in relevant part The CHIA shall be sufficient to determine, for the purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area "

The second context, with slight modification, is as a permit application requirement for the applicant to provide a Hydrologic Reclamation Plan as mandated by 30 CFR 780 21(h) and 784 14(g), which states in relevant part that the plan "shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbances to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area " Third the phrase is used in the context of a performance standard in 30 CFR 816 41(a) and 817 41(a), which requires that mining and reclamation activities be conducted "to prevent material damage to the hydrologic balance outside the permit area " The fourth context relates to monitoring requirements and is contained in that same paragraph It authorizes the regulatory authority to 'require additional preventive remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented The Federal regulations at 30 CFR 816 41(c) and (e) /817 41(c) and (e) authorize the regulatory authority to modify the monitoring requirements, including parameters and frequency, if the monitoring data demonstrates that the operation has "prevented material damage to the hydrologic balance outside the permit area '

These requirements, when taken together, clearly show that (1) the regulatory authority must make a written finding that the operation is designed to prevent material damage to the hydrologic balance outside the permit area before the permit can be issued, (2) a permit application must include a plan that shows the operation has been designed to prevent such damage, (3) the operation must be conducted to prevent such damage, and (4) the water monitoring requirements are used to determine whether or not such damage is occurring

The Federal regulatory framework outlined above demonstrates that the parameters for material damage must be reflected in the hydrologic monitoring requirements This relationship between water monitoring and material damage detection is confirmed by the fact that, for groundwater, monitoring of an aquifer may be waived upon a demonstration that it does not significantly ensure the hydrologic balance within the cumulative impact area in accordance with 30 CFR 780 21(i)(2) and 784 14(h)(2) The ground and surface-water monitoring requirements at 30 CFR 780 21(i) and (j) and 784 14(h) and (i) state that the plan shall provide for monitoring of parameters that relate to the suitability of the water resource "for current and approved postmining land uses' and the objectives of the hydrologic reclamation plan Minimum parameters that must be monitored are also specified separately for ground and surface water Thus, the Federal regulations provide minimum parameters for measuring material damage

Material damage thresholds or standards for those parameters are not specified However 30 CFR 816 42 and 817 42 mandate that discharges from mining operations be in compliance with applicable State and Federal water quality laws and the effluent limitations promulgated by EPA at 40 CFR part 434, which apply to some of the parameters for which monitoring is mandated in 30 CFR 780 21 and 784 14 In accordance with 30 CFR 773 15(e) a permit cannot be issued without a written finding that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area In addition, 30 CFR 780 21(h) and 784 14(g) require that the application contain steps to be taken during mining and reclamation and through bond release to meet applicable State and Federal water quality laws and regulations Thus, EPA's effluent limitations at 40 CFR Part 434 may constitute reasonable material damage criteria for some of the parameters specified in monitoring requirements This relationship is discussed in the September 26, 1983 preamble requirement for the regulatory authority to make a material damage finding as follows "OSM has not established fixed criteria, except for those established at 30 CFR 816 42 and 817 42 related to compliance with water quality standards and effluent limitations "

With this background in mind, we have evaluated each of the proposed amendments to the West Virginia program in relation to Federal requirements for preventing damage to the hydrologic balance outside the permit area.

B. Specific WVDEP Amendment Language and Interpretation

1. West Virginia's Cumulative Impact Definition

The West Virginia program was conditionally approved in January 1981 based upon Federal regulations in existence at that time. None of the conditions on that approval related to the CHIA process or requirements to prevent material damage to the hydrologic balance outside the permit area. However, when OSM revised its hydrologic balance regulations on September 26, 1983, (48 FR 43956), among other things, a definition of "cumulative impact area" was added. On August 19, 1986, OSM notified West Virginia through a 30 CFR Part 732 letter, as clarified on December 18, 1987 (Administrative Record Numbers WV–711 and WV–748) that, among other changes unrelated to this rulemaking, West Virginia must amend its program to add a definition of "cumulative impact area" to bring its program into compliance with the revised 1983 Federal rules. In responding to those requirements, West Virginia submitted proposed emergency and legislative rules in August 1988 that contained a definition of "cumulative impact", as well as the mandated definition of "cumulative impact area" (Administrative Record Numbers WV–760 and WV–766).

On May 23, 1990, OSM published a **Federal Register** notice announcing the approval of several State program amendments, which included West Virginia's definitions of cumulative impact and cumulative impact area at Finding 2.10 (55 FR 21309). OSM found that although the Federal regulations do not specifically define cumulative impact, the Federal requirements at 30 CFR 780.21(g) and 784.14(f) contain provisions regarding the cumulative impact of mining on the hydrologic balance which form the basis for the State's definition. Furthermore, the State's definition of cumulative impact area is identical to the corresponding Federal definition at 30 CFR 701.5. Therefore, we found that CSR 38–2-2.38 and 38–2-2.39 of the proposed State regulations were not inconsistent with the Federal regulations at 30 CFR 701.5, 780.21(g) and 784.14(f).

2. Effect of Deleting the Definition of Cumulative Impact

The definition of the term cumulative impact that is proposed for deletion from the WVDEP program is:

Cumulative impact means the hydrologic impact that results from the accumulation of flows from all coal mining sites to common channels or aquifers in a cumulative impact area. Individual mines within a given cumulative impact area may be in full compliance with effluent standards and all other regulatory requirements, but as a result of the co-mingling of their off-site flows, there is a cumulative impact. The Act does not prohibit cumulative impacts but does emphasize that they be minimized. When the magnitude of cumulative impact exceeds threshold limits or ranges as predetermined by the Division [WVDEP], they constitute material damage.

As previously noted, neither SMCRA nor the Federal regulations have a corresponding definition of "cumulative impact" and West Virginia added this definition in 1988 on its own volition. Therefore, on its face, removal of this definition would leave the State program consistent with Federal regulations. However, in accordance with the decision of the Circuit Court, OSM must also evaluate the effect the proposed removal of the cumulative impact definition will have on State program implementation in order to assure that any such effect will not render that program less effective than the Federal regulations at meeting the purposes of SMCRA.

Much of the controversy surrounding the proposed removal of West Virginia's cumulative impact definition has focused on the last sentence, which essentially defines material damage in terms quite different than the proposed definition of material damage to hydrologic balance outside the permit area that is discussed later in this notice. The discussion here only focuses upon the effect of removing the definition of cumulative impact with its definition of material damage contained in the last sentence.

First, the definition proposed for removal from the West Virginia program defines material damage in the context of cumulative impacts. This is in contrast to SMCRA and the Secretary's regulations, which state that the proposed operation must be designed to prevent material damage. WVDEP makes this point, on page four of its letter accompanying the submittal, by stating that the focus of the material damage finding required by 30 CFR 780.21(g) and section 510(b)(3) of SMCRA is more limited than the scope of the full CHIA analysis of which it is a part. The CHIA is to assess the impacts of all anticipated mining in the cumulative impact area, while the material damage finding only deals with whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. This distinction is also noted in the preamble to OSM's Permanent Regulatory Program published on March 13, 1979 (44 FR 14902–15309) at page 15101 which, in explaining the CHIA requirement then at 30 CFR 786.19(c), states "Section 510(b)(3) of the Act requires that the regulatory authority assess the probable cumulative impact on the hydrologic balance of all mining anticipated in an area. In addition, it must also find, prior to approval, that a proposed operation will minimize damage to the hydrologic balance outside the permit area."

When OSM modified its CHIA requirements, it made clear that the CHIA must be sufficient to make the required finding that material damage will be prevented outside the permit area. The preamble to those changes, published on September 26, 1983, (48 FR at 43972–3) discussing 30 CFR 780.21(g), states that the CHIA need not result in judgments balancing current coal development and possible future development. It also states that "the final rule allows a 'first come first served' analysis with each subsequent operation being based upon its potential for material damage with respect to any preceding operations." OSM further noted in that same preamble that "If any material damage would result to the hydrologic balance from the cumulative impacts of a newly proposed operation and any previously permitted operation, the new operation could not be permitted * * *" *Id. At 43857.*

Each permit must establish a cumulative impact area as set forth at 30 CFR 780.21(c) and 784.14(c). The West Virginia definition of cumulative impact area at CSR 38–2–2.39, and the Federal definition at 30 CFR 701.5 are virtually the same and mean: the area, including the permit area, within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and groundwater systems. Anticipated mining shall include the entire projected lives through bond releases of (a) the proposed operation, (b) all existing operations, (c) any operation for which a permit application has been submitted to the Secretary/Regulatory Authority, and (d) all operations required to meet diligent development requirements for leased Federal coal for

which there is actual mine development information available Therefore, while the West Virginia definition proposed for removal requires prevention of material damage from cumulative impacts rather than from the proposed operation as required by SMCRA and the Federal regulations, this is a distinction without a practical difference In any case, whether the definition is removed or not, the West Virginia program still requires that the proposed operation be designed to prevent material damage to hydrologic balance outside the permit area as required by SMCRA and Federal regulations The State's obligation and responsibility to properly prepare a CHIA and to make the finding regarding material damage on a case by case basis as required by SMCRA remains an integral component of the West Virginia program even without this definition

Second, the final sentence of the definition proposed for removal states that "When the magnitude of cumulative impact exceeds threshold limits or ranges as predetermined by the Division, they constitute material damage " It is debatable whether this sentence mandates (as some argue) that the Division predetermine threshold limits or ranges for all material damage parameters or only mandates that, where the Division has in fact, predetermined threshold limits or ranges, exceeding them constitutes material damage OSM stated in the preamble to the 1983 hydrology regulations at page 43973 that "OSM agrees that the regulatory authorities should establish criteria to measure material damage for the purposes of the CHIAs " However the CHIA regulation does not mandate that States do so This is in sharp contrast to 30 CFR 816 116 (a)(1) for revegetation success standards, also finalized in September 1983, where OSM mandated that regulatory authorities must select standards for success and sampling techniques for evaluating vegetation success and include them in the approved regulatory program (OSM removed the requirement for OSM s prior approval of these success standards and sampling techniques on August 30, 2006, (71 FR 51684, 51688–51695, 51705–51706)) Instead the hydrology regulations provide general guidance to regulatory authorities in the water monitoring requirements at 30 CFR 780 21 and 784 14 as discussed above Further, in the 25 years since the hydrology rules were revised, OSM has not put States on notice, under 30 CFR Part 732 of an obligation to establish material damage criteria or that 30 CFR 816 42 or 817 42 must be used for such criteria The only mandate imposed on States as a result of the 1983 hydrology revised rules was the 1986 mandate under 30 CFR Part 732 that they each must establish a definition of "cumulative impact area" consistent with the new Federal definition added in 1983

In 1997, some 14 years after revising the CHIA and material damage requirements discussed above, OSM issued a National policy statement on acid mine drainage (AMD) in which it stated "Regulatory authorities should establish criteria to measure and assess material damage Material damage guidelines, to be applied on a case-by-case basis, are necessary to effectively assess the adequacy of mining and reclamation plans in addressing AMD prevention The policy goes on to state that "surface and groundwater monitoring data should be evaluated against established material damage criteria " In response to comments on the policy, OSM stated that

Section 510(b)(3) of SMCRA requires regulatory authorities to determine whether proposed operations have been designed to prevent material damage to the hydrologic balance outside the permit area This provision inherently requires the use of guidelines or criteria since even case-by-case determinations require the application of some type of damage threshold and impact measures " And '* * * the policy is consistent with the Act, its implementing regulations, and their preambles in that it encourages States to develop material damage guidelines but does not establish national criteria or guidelines Instead of establishing rigid guidelines to implement this policy, the regulatory authority could develop a flexible list of factors to consider in establishing thresholds and assessing material damage on a case-by-case basis "

The water monitoring requirements at 30 CFR 780 21 and 784 14 separately mandate minimum parameters for surface and groundwater that relate to both water quality and quantity Some of those relate to AMD It is apparent from the above discussion that, while regulatory authorities are expected to provide material damage guidelines they have considerable flexibility in doing so Even with the deletion of the current definition of "cumulative impact," West Virginia is still obligated to establish criteria for determining what constitutes material damage to the hydrologic balance outside the permit area consistent with the Federal requirements as discussed above

Based upon the foregoing discussion we find that approving the State's proposed amendment to delete its definition of "cumulative impact" at CSR 38–2–2 39 would have no adverse effect on the WVDEP's ability or obligation under its approved program to assess and determine whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area

In addition, we find, as discussed below, that this deletion is further ameliorated by the addition of a new definition of "material damage to the hydrologic balance '

Furthermore, we find that the deletion of the definition does not make the State program less effective than the hydrologic protection requirements set forth in the Federal regulations nor less stringent than those in SMCRA, and its removal can be approved

3 Effect of Adding a Definition of Material Damage

West Virginia is proposing to add a sentence to its CHIA requirements at CSR 38–2–3 22 e that would define material damage to the hydrologic balance outside the permit area It reads as follows

Material damage to the hydrologic balance outside the permit areas means any long term or permanent change in the hydrologic balance caused by surface mining operation(s) which has a significant adverse impact on the capability of the affected water resource(s) to support existing conditions and uses

The question before us is whether West Virginia's proposed addition of a sentence defining material damage to the hydrologic balance outside the permit area to its CHIA requirements would leave the State program no less stringent than SMCRA and no less effective than Federal regulations in achieving the purposes of SMCRA Since neither SMCRA nor the Federal regulations define material damage or require that States define the term as part of their approved programs, at issue before us is whether the definition proposed by West Virginia limits the reach of material damage in a way that reduces the effectiveness of its program so that it would be less effective than Federal rules in achieving the purposes of SMCRA

In light of that framework, there are three aspects of the proposed definition that must be considered in evaluating whether it can be approved These are (1) *Long term or permanent* change, (2) *significant* adverse impact, and (3) *capability* of the affected water resources to support *existing conditions* and *uses* (emphasis added)

These three facets of the proposed definition can be viewed as giving meaning to "material" as it modifies damage As part of its explanation for its proposed definition, West Virginia focuses on "material," both in its plain meaning and its use in other SMCRA contexts for the phrase ' material damage," e g subsidence damage and protection of alluvial valley floors Just as West Virginia is proposing here, the word "significant" in the Federal regulatory definitions appears to be relevant in applying material damage in both of those cases Further, the word "significant" is used in 30 CFR 780 21 and 784 14 related to groundwater monitoring in determining whether a particular aquifer needs to be monitored Since material damage certainly implies something more than minor damage and it is a word that OSM has used in Federal regulations for material damage in other contexts, the use of ' significant" by West Virginia in this definition is not on its face unreasonable

In discussing how the phrase "support existing conditions and uses" would be applied, West Virginia states that it effectively requires the State to consider the water quality standards it has promulgated under its Clean Water Act that have been approved by EPA "By definition, 'water quality standards' means the 'combination of water uses to be protected and the water quality to be maintained by the rules setting forth those standards " West Virginia also notes that "water quality criteria" is also a defined term that references designated uses as well as existing uses as specifically provided by the proposed definition Designated use specifies how the water can be used, such as warm water fishery or primary contact recreation States are required by the Clean Water Act to assign one or more uses to each of its waters These uses must be taken into consideration by the State when approving a proposed mining operation West Virginia then states that, under the proposed definition, in order to assure that mining will not result in a long term or permanent change in the hydrologic balance which has a significant adverse impact on the capability of a receiving stream to support its uses a proposed mining operation must be designed so as to consistently comply with the water quality standards for the designated uses for the receiving stream West Virginia further notes it does not intend to consider every pollutant for which a water quality standard has been promulgated Instead, consideration will be limited to standards for those parameters which, based upon its experience with other mining operations in the area and the geochemical data required in the application have the potential to have an impact on water quality if the application is granted

The Federal water monitoring requirements at 30 CFR 780 21 and 784 14, which, as discussed above are linked to detecting material damage, state that current and approved postmining land use should be considered in establishing parameters to be monitored for both surface and groundwater West Virginia's proposed link of material damage to existing water uses is not inconsistent with that concept, particularly with its explanation of how it would be applied since water quality standards established under the Clean Water Act are linked to both existing and designated uses We do note that those standards do not extend to surface water quantity or to ground water quality or quantity Therefore, there are additional material damage criteria for which the State must consider how it will determine material damage However, the proposed definition does not limit West Virginia s authority or obligation to do so By including its Water Quality Standards with the amendment we understand that West Virginia intends to apply the requirements set forth at CSR 46–1–1 *et seq* when determining when material damage to the hydrologic balance has occurred

In regard to the issue of long-term or permanent change, West Virginia states that, while the operation must be designed to consistently comply with applicable standards, isolated or random exceedance of water quality standards will not be regarded as material damage The idea that material damage to the hydrologic balance is linked to long term trends rather than an isolated spike in relation to threshold levels or ranges is consistent with the requirement that monitoring data need only be submitted every three months and gives reasonable meaning to "material" damage While OSM recognizes that there have been a few individual events of enormous magnitude and impact that would certainly qualify as material damage to the hydrologic balance outside the permit area, there are numerous performance standards that could be cited in enforcement actions in such cases to mandate corrective measures under approved State programs Further, OSM does not view the proposed State definition as limiting West Virginia's ability to cite the State counterpart (CSR 38–2–14 5) to 30 CFR 816 41(a) and 817 41(a) for causing material damage to the hydrologic balance outside the permit area in such cases OSM believes that all of these issues related to the material damage finding should be addressed by the regulatory authority on a case-by-case basis as mining permit applications are reviewed and approved, in concert with the CHIA In reviewing West Virginia's proposed material damage definition, OSM finds that it does provide reasonable guidance on what would constitute material damage to the hydrologic balance outside the permit area without imposing limitations on the reach of that phrase that would make the West Virginia program less effective than the Federal regulations at achieving the purposes of SMCRA

West Virginia has stated that it intends to implement its proposed definition in a manner that provides objective criteria for determining whether a proposed operation is designed to prevent material damage to the hydrologic balance outside the permit area Further, it has stated that it would do so in a manner that gives reasonable meaning to the phrase "material" while providing consistent application understandable to all parties Therefore, OSM finds that the proposed new definition of material damage at CSR 38–2–3 22 e is no less stringent than SMCRA and no less effective than Federal regulations in achieving the purposes of the Act and it can be approved This finding is based upon West Virginia implementing this new definition consistent with its explanation provided with the proposed amendment as summarized above and consistent with the intent of SMCRA as discussed in this notice Should we later find that this definition is not being implemented in a manner consistent with the above discussion, OSM may revisit this finding

IV. Summary and Disposition of Comments

We received written comments from Geo-Hydro, Inc (Administrative Record Number WV–1496), a private citizen (Administrative Record Number WV–1498), a combined set of comments on behalf of the Hominy Creek Preservation Association, Inc , Ohio River Valley Environmental Coalition, Inc , and West Virginia Highlands Conservancy, Inc (Administrative Record Number WV–1495) We also received comments from two Federal agencies, the United States Department of the Interior Fish and Wildlife Service West Virginia Field Office (Administrative Record Number WV–1491) and the United States Environmental Protection Agency

Region III (Administrative Record Number WV–1497)

Public Comments

Extensive comments were received from Walton D Morris, Jr on behalf of Hominy Creek Preservation Association, Inc , Ohio River Valley Environmental Coalition, Inc (OVEC), and West Virginia Highlands Conservancy, Inc OSM will refer to these comments collectively as those of OVEC

OVEC contends that OSM's publication of a proposed rule "which merely invites public comment on West Virginia's resubmission documents falls short of the requirement which the Administrative Procedure Act (APA), 5 U S C 553, imposes on the agency * * *" In support of this comment, OVEC lists several alleged deficiencies in the proposed amendment, all of which, according to OVEC, were noted by "courts" In addition the WVDEP's new explanatory letter "does not have the force of law and therefore does not cure the defects in the proposed amendments which led the reviewing courts to strike down OSM's approval decision", according to OVEC "Specifically", OVEC argues, "there remains no definition in the proposed amendments of 'long-term change' or 'significant adverse impact ' There are no regulatory provisions or other provisions with the force of law that indicate 'how the regulatory authority propose[s] to measure such an impact or determine when it would occur;' " Finally, OVEC contends that, '[i]f OSM proposes to re-approve these very same proposed program amendments, the agency has an obligation first to inform the public of the basis on which it proposes to do so", and "to perform and present the analysis which the reviewing courts found missing from the agency's earlier program approval decision and to request further public comment on that analysis "

First we note that the Fourth Circuit, unlike the District Court, did not point to any alleged deficiencies in the amendments themselves, such as the failure to define certain terms Rather, its decision was based on OSM's failure to determine, based upon a thorough analysis, whether the amendments rendered the State's program less stringent than SMCRA and less effective than the Federal regulations 473 F 3d at 103 Thus, we disagree with OVEC that either OSM or the State is obligated to "cure the defects in the text of the proposed amendments" by way of explanation in the proposed rule

Second we disagree with OVEC's assertion that we are obliged to ' inform the public of the basis" for our proposed re-approval of the amendments, because this assertion proceeds from the false premise that OSM's proposed rule proposes approval of the amendments To the contrary, our proposed rule merely announces receipt of the amendments as required by 30 CFR 732 17, and asks for public and agency comment on the question of whether the amendments can be approved At the proposed rule stage, we take no position as to whether an amendment should be approved, therefore, we are not required to provide an analysis in the proposed rule that advocates approval

This approach is fully consistent with the APA as described by the Fourth Circuit in this case wherein the court stated "An agency engaged in rulemaking pursuant to APA 553 must 'follow [] a three-step process—issuance of a notice of proposed rulemaking, followed by receipt and consideration of comments on the proposal, followed by promulgation of a final rule that incorporates a statement of basis and purpose ' " 473 F 3d at 102 (quoting Kenneth Culp Davis & Richard J Pierce, Jr , *administrative Law Treatise* 7 4 (3rd ed 1994)) The Court goes on to note that the agency followed that process in concluding that the Secretary was engaged in rulemaking pursuant to APA Section 553

Each of OVEC's comments on the proposed rule suffers from a fundamental misinterpretation of the requirements of Section 553 of the Administrative Procedure Act, 5 U S C 553 With respect to proposed rules, the APA merely requires that the reviewing agency include "either the terms or substance of the proposed rule or a description of the subjects and issues involved ' *Cat Run Coal Co* v *Babbitt,* 932 F Supp 772, 777 (S D W Va 1996) (quoting 5 U S C 553(b)(3)) ' The notice must be 'sufficiently descriptive to provide interested parties with a fair opportunity to comment and to participate in the rule making' 932 F Supp at 777 (quoting *Chocolate Mfrs Ass n of U S* v *Block,* 755 F 2d 1098, 1104 (4th Cir 1985) (citations omitted)

In our May 17, 2007, proposed rule, we set forth the full text of the amendment, which includes the deletion of the "cumulative impact" definition, as well as the addition of a definition of 'material damage", in CSR 38–2–3 22 e Next, we presented, in considerable detail the WVDEP's explanation of how the "material damage" definition will be interpreted and employed in the context of a permitting review Finally, we included the WVDEP's rationale for removing the definition of "cumulative impact" 72 FR 27782, 27784–5 (May 17, 2007)

Together, the text and explanatory narrative accompanying it satisfy the APA's requirement that the proposed rule include "the terms or substance of the proposed rule or a description of the subjects and issues involved " 5 U S C 553(b)(3) Indeed, our proposed rule surpasses the APA's mandate, since it includes both a description of the proposed amendments' "terms" and "substance", as well as a "description of the subjects and issues involved " As such, the proposed rule is sufficient to ensure that the public and other interested parties will have a fair opportunity to comment and to participate in the rulemaking process

In addition OVEC provides three primary reasons why OSM should disapprove the proposed program amendments These reasons are summarized below along with OSM's responses

I WVDEP's explanatory letter lacks the force of law, is inconsistent with both the text of pertinent West Virginia Statutes and Regulations and with WVDEP's prior explanations of the proposed amendments, and thus does not provide a rationale basis for evaluating or approving the amendments

OVEC comments that the explanation provided by WVDEP in support of the proposed amendments is inconsistent with previous explanations provided by the agency, is inconsistent with statutory and regulatory texts regarding water quality statutes, and is inconsistent with the testimony of the WVDEP in a deposition with regard to what constitutes material damage In addition, OVEC states that OSM should require WVDEP to furnish an opinion of the Attorney General of West Virginia that the "* * * legal interpretations set forth in the explanatory letter are correct both with respect to the proposed amendments and the water quality statutes and regulations which WVDEP invokes and that the letter has the force of law "

Before addressing OVEC's specific comments under this heading, it is important to note that 30 CFR 732 17 does not require a State to submit an explanation or rationale as a part of submitting proposed program amendments The extent to which OSM has relied upon material other than the language of proposed amendments themselves in relation to Federal requirements in reaching its decision is described above in the findings section While we found the State's explanation useful, the extent to which we have relied on it in reaching our decision is limited to the extent we have referenced it in the findings section above The

understanding upon which our approval is based is explained in the findings section and largely relies, as discussed, upon the reach of Federal requirements. Further, OSM has two decisions before it. While OVEC's comments treat these decisions as one without delineating which decision it is commenting on, there is generally more discussion of the material damage definition that is proposed for addition to the West Virginia program.

OVEC's sole basis for claiming inconsistency between the WVDEP's July 1, 2003, clarification and its March 22, 2007, letter is that the former document stated that the amendments "set forth some objective criteria" for determining material damage, while the latter document argues that the material damage determination must be a "qualitative, rather than a quantitative," judgment.

However, OVEC fails to note that in its 2007 letter, the WVDEP also contends that the new material damage standard is more objective than its predecessor, since it clearly requires the determination to be based on the ability of the proposed mining operation to comply with water quality standards, whereas the old "cumulative impact" definition referred to undefined "threshold limits and ranges." Thus, in both its 2003 and 2007 explanations of the amendments, the WVDEP contends that the new definition of material damage adds objectivity to the determination. The State did acknowledge in 2007 that the new definition does not adhere to a mathematically precise formula for producing a finding of material damage; however, a lack of mathematical precision does not equal a lack of objectivity. West Virginia states that water quality standards will be used to determine whether an operation has been designed to prevent material damage to the hydrologic balance outside the permit area since the new definition references use and the State's water quality standards are set to protect existing and designated uses. Thus, material damage determinations, though made on a case-by-case basis, will be objective in nature. For these same reasons, we disagree with OVEC that the WVDEP's 2007 explanation somehow attempts to thwart the West Virginia Legislature's intent "to set forth some objective criteria" for material damage determinations.

OVEC asserts that the State's March 22, 2007, letter contains erroneous interpretations of West Virginia's water quality statutes and regulations. First of all, OSM's decision to approve both of these amendments is unaffected by any disputes between OVEC and West Virginia over the proper interpretation of West Virginia's water quality statutes and regulations. The basis for our decisions to approve both of these proposed amendments is explained above under the findings section. The SMCRA mandate that proposed mines be designed to prevent material damage to the hydrologic balance is not a vehicle for using SMCRA to enforce CWA requirements.

Further, disputes over a State's proposal to revise its program requirements related to preventing material damage to the hydrologic balance under SMCRA are not a proper vehicle for resolving or addressing disputes over how the State's CWA requirements should be interpreted. In short, this dispute is not relevant to our decisions because those decisions are not based upon any particular interpretation of the State's CWA application. Having said that, OVEC's argument herein appears to rest on its assertion that a single, isolated violation of any such water quality law or regulations constitutes material damage. However, OVEC cites no law or regulation supporting this argument. To the contrary, as discussed above, States have considerable discretion in establishing their CHIA process and establishing criteria for making the required material damage finding, including the extent to which they utilize CWA standards or criteria in doing so. Moreover, the WVDEP's letter does not purport to carry the force of law, and we do not accord it such weight. In any event, there is no Federal regulatory requirement for OSM to request an Attorney General's opinion to accompany a state program amendment.

Finally, we acknowledge an apparent inconsistency between the March 22, 2007, letter and the WVDEP employee's deposition testimony with regard to what constitutes "material damage". We have given the preponderance of weight to the March 22, 2007, letter, since it is subsequent to the deposition testimony, which was given in 2003, and, more important, because it was offered in support of this re-submission and was signed by the head of the agency. Regardless of anything submitted by the WVDEP, however, the ultimate burden is on OSM to determine whether these amendments are no less stringent than SMCRA and no less effective than the implementing Federal regulations. We have met that burden.

II. The proposed amendments would render the West Virginia Program inconsistent with the Federal requirement that regulatory authorities define material damage in terms of predetermined limits and ranges for specific hydrologic parameters.

OVEC comments that the proposed amendments are inconsistent with SMCRA and less effective than the Federal regulations because they "* * * fail to establish * * * usable criterion for determining material damage to the hydrologic balance outside the permit area."

As discussed extensively above, OVEC vastly overstates the Federal mandate. No such mandate is contained in SMCRA or the Federal regulations and no other State or Federal program contains, as part of its regulations, the definition that West Virginia proposes to remove. While OSM stated in the preamble to the 1983 hydrology regulations (48 FR 43973) "* * * that the RA's should establish criteria to measure material damage for the purposes of CHIA's," it did not establish a regulatory mandate that States do so nor require OSM approval of such criteria. The only mandate imposed on States as a result of the 1983 hydrology revised rules was the 1986 mandate under Part 732 that they each must establish a definition of "cumulative impact area" consistent with the new Federal definition at 30 CFR 701.5 added in 1983. With that said, OSM is approving the proposed amendments with the understanding that the State will determine on a case-by-case basis meaningful objective material damage criteria in order to make the finding regarding material damage required by 30 CFR 773.15(e).

OVEC comments further on this issue that "* * * regulatory authorities must include pertinent, applicable numeric water quality standards and effluent limitations in a set of predetermined material damage criteria contained in the CHIA for each proposed surface and coal mining operation." In addition OVEC is concerned that WVDEP would only consider a stream materially damaged if the stream were "completely sterilized" or a use "destroyed". In addition, there were concerns raised about the WVDEP position that a "minor" exceedance of water quality standards would not constitute material damage.

OSM disagrees with the statement that effluent limitations and water quality standards constitute predetermined material damage criteria. OVEC is under the misguided impression that 30 CFR 816 42 and 817.42 establish fixed material damage criteria for coal mining operations. While the plain language of these regulations require discharges of water from mining operations to be in compliance with applicable State and

Federal water quality laws and regulations as well as the EPA effluent limitations for coal mining operations, there is no assertion that discharges that violate such laws and regulations somehow automatically constitute material damage to the hydrologic balance Obviously discharges that do not comply with either the effluent limitations or water quality standards should be considered performance standard violations by the regulatory agency, but whether such discharges constitute material damage to the hydrologic balance is another issue entirely OSM believes that a discharge of any magnitude or duration into a stream that results in the loss of an existing or designated use is not an acceptable impact to the hydrologic balance from SMCRA regulated coal mining operations, even if the discharge does not violate effluent limitations or water quality standards Clearly the discharge does not have to reach the severity necessary to result in the total destruction of a stream in order to constitute material damage On the other hand, one single minor violation of effluent limitations could easily occur and result in no detectible impact to a receiving stream's existing or designated use

OVEC further elaborates on this issue to the extent that "WVDEP proposes to rewrite West Virginia s pertinent, applicable water quality standards to - adopt more lenient pollutant limits, etc * * * " OVEC makes this leap as a result of its previous erroneous conclusion that SMCRA mandates the use of water quality standards and effluent limits for coal mining operations as predetermined material damage criteria The water quality standards and effluent limits are established by State and Federal law pursuant to the CWA As provided by section 702(a)(3) nothing in SMCRA or a State program amendment approved by OSM, can alter or modify these standards or limits OSM cannot in its approval of a State program amendment alter existing CWA laws in any State Indeed, OSM does not agree that WVDEP is proposing to rewrite any CWA laws through these State program amendments OSM agrees with WVDEP as addressed in the previous comment response that water quality standards and coal mining effluent limits do not constitute predetermined material damage criteria unless the State, at its discretion, decides to apply them that way Our approval of these two amendments is not based upon the State deciding to do so

OVEC comments that the WVDEP amendment does not guarantee that new mining operations will be prevented from discharging additional pollutants into streams listed as impaired pursuant to Section 303(d) of the Clean Water Act, nor does the amendment prevent WVDEP from allowing permits to discharge into waters for which no TMDL has been prepared In addition OVEC requests that "* * * OSM investigate the situation (issuing permits allowing discharges into 303(d) listed streams for which there is no TMDL) as part of its evaluation of these proposed amendments "

Allegations of improper implementation of a State's CWA program are beyond the scope of review for a State SMCRA program amendment However, when considering material damage impacts, it is certainly appropriate for a State to consider the fact that 303(d) listed streams (i e , those already impaired) are in need of restoration and a reduction of pollutant loadings in order to achieve their designated use OSM, in cooperation with other agencies and local watershed groups, expends millions of dollars through the abandoned mine land program to restore streams biologically impaired from abandoned coal mines These efforts would be meaningless if current mine operators are allowed to discharge pollutants into these impaired waters that would offset restoration efforts Thus, there is value in using State water quality criteria (both numeric and narrative standards) in such a manner that existing and designated uses are protected, and to ensure that impaired streams are not further degraded as a result of SMCRA regulated mining activities On the other hand we do not construe Federal material damage requirements as mandating, where there is a choice between discharging in compliance with effluent standards into a 303(d) impaired stream or discharging into a high quality pristine stream, that the discharge must go into the high quality stream In short, SMCRA material damage requirements should not be construed as a mechanism for enforcing CWA TMDL requirements through SMCRA OSM believes that protecting the hydrologic balance from material damage requires a comprehensive analytical approach, considering both short-term (during mining and reclamation) and long-term (those that are projected to extend beyond the release of reclamation performance bonds) impacts

III Approval of the proposed amendments would impair or preclude effective citizen participation in the administration and enforcement of the West Virginia Program

The commenter asserts that the amendments replace predetermined, quantitative material damage criteria with a vague, subjective definition that would surely confound any citizen's effort to independently detect or prove a violation of the standard The cost and restricted availability of experts whom a citizen would necessarily have to retain in any attempt to prove a violation of such an amorphous standard would fatally chill public participation in its enforcement

OSM disagrees with this comment Neither of the amendments that the State is proposing effect in any way the public participation provisions of the approved West Virginia program In addition, it should be noted that with every permit application filed, the public has the opportunity to provide comment and input regarding the proposed application In addition, once the application is approved, the public has another opportunity for review through the administrative review process under the State counterpart to 30 CFR 775 11 Further, as discussed repeatedly above, OVEC's comments represent a serious mischaracterization of the two amendments

There are also a few other aspects of OVEC's comments that warrant a response The background section seriously mischaracterizes Federal CHIA and material damage requirements The draft CHIA guidelines that OSM released in 1985 quoted from in the comments are just that—draft They have never been finalized and certainly do not represent an agency position enforceable by regulation, including the State program amendment process Further, the introduction to the draft guidelines states clearly that they were only intended as technical guidance and should not be construed as enforceable standards Contrary to OVEC's assertion OSM did not approve the 1993 West Virginia CHIA handbook nor has OSM considered the handbook or revisions to it, as requiring OSM approval Finally, OSM has considered OVEC's request for a delay in the effective date of any decision The benefits of making this decision effective immediately are no different than with other State program amendments that OSM processes By regulation in 30 CFR part 732, OSM has limited time to process proposed State program amendments OSM often, as in this case, has difficulty meeting those time frames Delaying the effective date would only exacerbate the problem in meeting the regulatory time frame, and making sure that State program requirements are consistent with Federal requirements as required

by SMCRA. Therefore, this rule will be effective immediately upon publication.

Additional comments were also received from Charles H. Norris, on behalf of Hominy Creek Preservation Association, Inc. (HCPA), Ohio Valley Environmental Coalition, Inc, and West Virginia Highlands Conservancy, Inc. OSM will refer to these comments collectively as those of HCPA.

HCPA commented regarding a quality review panel established for the purpose of assessing the performance of the West Virginia State regulatory authority with respect to cumulative hydrologic impact assessment (CHIA). HCPA commented that the study indicated that "The CHIA's for eleven of the twelve permits that the panel reviewed failed to define conditions that would constitute material damage for the cumulative impact area for each permit." OSM participated in this same study of the WVDEP CHIA process. The study's report was finalized in February of 2007, and concluded, among other things, that WVDEP did not establish material damage limits in its CHIA process. The commenter went on to state that "* * * the almost universal failure to define objective criteria for material damage constituted a recurring, fatal flaw in the CHIAs * * *". OSM acknowledges that WVDEP needs to improve its application of CHIA requirements as noted in the 2007 report. Those basic conclusions are unaffected by the amendments approved here. We find this to be more related to the technical implementation of the program than to its regulatory obligations addressed in this decision. OSM finds that allowing the State to amend the program to allow a definition that the WVDEP believes more correctly aligns with its Clean Water Act will create a more stable regulatory platform for consistent application of regulatory requirements. As part of its oversight process, OSM will continue to monitor WVDEP's progress in addressing the findings noted in the 2007 CHIA report.

HCPA indicated its concern that WVDEP had not specifically addressed other aspects of the hydrologic balance beyond surface water quality such as "* * * material damage to stream flow * * *", and "* * * material damage with respect to the other elements of the hydrologic balance; surface water quantity, groundwater quantity, and groundwater quality."

While OSM embraces the applicability of water quality standards as a component of a comprehensive approach to protect and restore surface waters, as discussed in the finding section above, other water criteria must also be factored into the consideration of material damage. The approval of these two amendments today is based upon that understanding. As the commenter points out various other elements of the hydrologic balance "* * * surface water quantity, groundwater quantity, and groundwater quality * * *" must also be assessed with regard to the specific material damage criteria necessary to assure protection of existing and foreseeable uses of these water resources.

Federal Agency Comments

Under Federal regulations at 30 CFR 732.17(h)(11)(i) and section 503(b) of SMCRA, we requested comments on April 27, 2007, regarding the amendments from various Federal agencies with an actual or potential interest in the West Virginia program (Administrative Record No. 1488). The results of this consultation are presented below.

U.S. Fish and Wildlife Service (USFWS) provided comments on May 29, 2007, on the proposed amendments to the West Virginia program. The USFWS expressed its concern with the WVDEP interpretation and application of water quality standards relative to its proposed definition of material damage. Specifically, the USFWS is concerned with the cumulative impacts of minor exceedances of the water quality standards. It is also concerned with the allowable one-time events on certain aquatic populations such as fish and mussels. All discharges from mining operations must be made in compliance with the applicable water quality standards and effluent standards. Discharges that violate these standards are subject to the enforcement provisions of the State program. Multiple discharges resulting in violations over time, even if they do not materially damage a stream, are not to be taken lightly by either a mine operator or the State RA. Pursuant to 30 CFR 843.13, the State could suspend or revoke a permit when a pattern of violations is found to exist. In addition, OSM does not consider the amendments approved today as limiting the State's authority or obligation to consider whether a significant individual event caused or may cause material damage to the hydrologic balance outside the permit area.

The USFWS also recommended retention of the definition of cumulative impact, while suggesting the definition be revised to expand its applicability to the water quality standards. OSM has decided to approve West Virginia's request to remove the existing definition as it has been effectively replaced by the new definition of material damage in the West Virginia program, and the desired outcome can be achieved through the appropriate interpretation and application of the State's existing definitions of CIA and CHIA, along with the approved definition of material damage. In addition, WVDEP has stated in its submission that it intends to "* * * consider the water quality standards it has promulgated * * * as part of the material damage inquiry under the surface mining law." OSM is approving this amendment with the understanding that the State will utilize its water quality standards as a means of protecting streams from mining related material damage. However, the material damage finding is not limited to water quality standards, and therefore OSM does not desire that States adopt a definition that could be interpreted so narrowly as to only focus on water quality standards. OSM anticipates that the material damage finding will be used to address impacts to other water resources, such as surface water quantity and groundwater quantity and quality, as discussed in this decision. OSM believes that the approved WVDEP program includes all of the necessary hydrologic requirements within the existing law and regulations, and that the program will be implemented in a manner consistent with the intent of SMCRA and the Federal regulations with regard to preventing material damage to the hydrologic balance outside the permit area.

Environmental Protection Agency (EPA) Concurrence and Comments

Under Federal regulations at 30 CFR 732.17(h)(11)(i) and (ii), we are required to get a written concurrence from EPA for those provisions of the program amendment that relate to air or water quality standards issued under the authority of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or the Clean Air Act (42 U.S.C. 7401 *et seq.*). On April 27, 2007 we requested concurrence and comments on the amendment from EPA (Administrative Record No. WV 1487).

EPA provided comments on June 21, 2007, and stated that the proposed amendment may be subject to interpretations that could be inconsistent with the CWA. It is not clear to which of the two proposed amendments EPA was referring. However, nothing in either of these amendments would affect or interfere with the State's implementation of the CWA. To the contrary, we believe they will improve coordination. OSM finds that WVDEP has stated its intent in such a manner that the new definition of material damage will not jeopardize the obligation of mining operations to be

conducted in compliance with the applicable water quality standards and effluent standards as required by 30 CFR 816/817.42 or the State counterpart at CSR 38–2–14.5b. Nothing in our approval of this program amendment affords any variance from compliance with the CWA or any provisions of SMCRA. With respect to deleting the definition of cumulative impact, OSM finds that the State's existing regulations, together with the proposed definition of material damage, provide comparable protection. All mining operations must be designed to minimize impacts to the hydrologic balance within the permit area and adjacent areas pursuant to 30 CFR 816/817.41 (a) and CSR 38–2–14.5. Using a cumulative impact area based upon information provided by the applicant or other agencies as required by 30 CFR 780.21(g), 784.14(f) and CSR 38–2–3.22d and .e, the State must evaluate the cumulative hydrologic impacts of all anticipated mining upon surface and ground water systems so as to prevent material damage to the hydrologic balance outside the permit area. By definition, this evaluation must take into account the combined impacts of all mining and anticipated mining in the cumulative impact area as required by 30 CFR 701.5 and CSR 38–2–2.39. The CHIA determines cumulative impact and specifies if material damage is expected to occur; therefore deleting the proposed definition of cumulative impact does not make the West Virginia program inconsistent with the requirements of SMCRA.

EPA, while expressing its concerns as outlined above, concurred with the proposed revisions, with the understanding that all coal mining operations would be conducted in full compliance with all relevant provisions of the CWA. EPA provided its concurrence based on the understanding that 30 U.S.C. 1292 requires that the proposed State amendments must be construed and implemented consistent with the CWA, NPDES regulations and other relevant environmental statutes.

V. OSM's Decisions

A. Decision on Deletion of Definition of Cumulative Impact

OSM has reviewed the corresponding changes in regulations, the relevant existing regulations, and the current interpretation of the proposed regulations as provided by the State. OSM finds that the WVDEP has the authority to require proper preparation of PHCs and CHIAs and to establish realistic delineations of cumulative impact areas under its existing regulations without relying on the current definition of cumulative impact. The revision to delete the definition of cumulative impact, as it applies to the applicability of the West Virginia program, is no less stringent than SMCRA and is no less effective than the Federal regulations; therefore the proposed deletion of the definition is approved.

B. Decision on the Proposed Definition of Material Damage

OSM finds that the proposed definition of "material damage" and OSM's corresponding interpretation of its applicability to the approved program as stated in this notice, is no less stringent than SMCRA, and no less effective than the Federal regulations; therefore the proposed definition, as further described in this notice, is approved.

To implement these decisions, we are amending the Federal regulations at 30 CFR Part 948 which codify decisions concerning the West Virginia program. We find that good cause exists under 5 U.S.C. 553(d)(3) to make this final rule effective immediately. Section 503(a) of SMCRA requires that a State program demonstrate that such State has the capability of carrying out the provisions of the Act and meeting its purposes. Making this regulation effective immediately will expedite that process. SMCRA requires consistency of State and Federal standards.

VI. Procedural Determinations

Executive Order 12630—Takings

This rule does not have takings implications. This determination is based on the analysis performed for the counterpart Federal regulation.

Executive Order 12866—Regulatory Planning and Review

This rule is exempted from review by the Office of Management and Budget under Executive Order 12866.

Executive Order 12988—Civil Justice Reform

The Department of the Interior has conducted the reviews required by Section 3 of Executive Order 12988 and has determined that this rule meets the applicable standards of Subsections (a) and (b) of that section. However, these standards are not applicable to the actual language of State regulatory programs and program amendments because each program is drafted and promulgated by a specific State, not by OSM. Under Sections 503 and 505 of SMCRA (30 U.S.C. 1253 and 1255) and the Federal regulations at 30 CFR 730.11, 732.15, and 732.17(h)(10), decisions on proposed State regulatory programs and program amendments submitted by the States must be based solely on a determination of whether the submittal is consistent with SMCRA and its implementing Federal regulations and whether the other requirements of 30 CFR Parts 730, 731, and 732 have been met.

Executive Order 13132—Federalism

This rule does not have Federalism implications. SMCRA delineates the roles of the Federal and State governments with regard to the regulation of surface coal mining and reclamation operations. One of the purposes of SMCRA is to "establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations." Section 503(a)(1) of SMCRA requires that State laws regulating surface coal mining and reclamation operations be "in accordance with" the requirements of SMCRA, and Section 503(a)(7) requires that State programs contain rules and regulations "consistent with" regulations issued by the Secretary pursuant to SMCRA.

Executive Order 13175—Consultation and Coordination With Indian Tribal Government

In accordance with Executive Order 13175, we have evaluated the potential effects of this rule on Federally recognized Indian tribes and have determined that the rule does not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes. The basis for this determination is that our decision is on a State Regulatory program and does not involve a Federal Regulation Involving Indian Lands.

Executive Order 13211—Regulations That Significantly Affect the Supply, Distribution, or Use of Energy

On May 18, 2001, the President issued Executive Order 13211 which requires agencies to prepare a Statement of Energy Effects for a rule that is (1) considered significant under Executive Order 12866, and (2) likely to have a significant adverse effect on the supply, distribution, or use of energy. Because this rule is exempt from review under Executive Order 12866 and is not expected to have a significant adverse effect on the supply, distribution, or use of energy, a Statement of Energy Effects is not required.

National Environmental Policy Act

This rule does not require an environmental impact statement because Section 702(d) of SMCRA (30 U S C 1292(d)) provides that agency decisions on proposed State regulatory program provisions do not constitute major Federal actions within the meaning of Section 102(2)(C) of the National Environmental Policy Act (42 U S C 4332(2)(C))

Paperwork Reduction Act

This rule does not contain information collection requirements that require approval by OMB under the Paperwork Reduction Act (44 U S C 3507 *et seq*)

Regulatory Flexibility Act

The Department of the Interior certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U S C 601 *et seq*) The State submittal which is the subject of this rule, is based upon counterpart Federal regulations for which an economic analysis was prepared and certification made that such regulations would not have a significant economic effect upon a substantial number of small entities In making the determination as to whether this rule would have a significant economic impact the Department relied upon data and assumptions for the counterpart Federal regulations

Small Business Regulatory Enforcement Fairness Act

This rule is not a major rule under 5 U S C 804(2), the Small Business Regulatory Enforcement Fairness Act This rule (a) Does not have an annual effect on the economy of $100 million, (b) Will not cause a major increase in costs or prices for consumers individual industries, Federal, State, or local government agencies, or geographic regions, and (c) Does not have significant adverse effects on competition, employment, investment productivity, innovation, or the ability of U S based enterprises to compete with foreign-based enterprises This determination is based upon the fact that the West Virginia submittal, which is the subject of this rule, is based upon counterpart Federal regulations for which an analysis was prepared and a determination made that the Federal regulation was not considered a major rule

Unfunded Mandates

This rule will not impose an unfunded mandate on State, local or tribal governments or the private sector of $100 million or more in any given year This determination is based upon the fact that the West Virginia submittal, which is the subject of this rule is based upon counterpart Federal regulations for which an analysis was prepared and a determination made that the Federal regulation did not impose an unfunded mandate

List of Subjects in 30 CFR Part 948

Intergovernmental relations, Surface mining Underground mining

Dated December 18, 2008

Brent Wahlquist,

Director

■ For the reasons set out in the preamble, 30 CFR part 948 is amended as set forth below

PART 948—WEST VIRGINIA

■ 1 The authority citation for part 948 continues to read as follows

Authority 30 U S C 1201 *et seq*

■ 3 Section 948 15 is amended by adding a new entry in the table in chronological order by "Date of final publication" to read as follows

§ 948.15 Approval of West Virginia regulatory program amendments

* * * * *

Original amendment submission date	Date of final publication	Citation/description
* * * * * * *		
March 22, 2007	December 24, 2008	CSR 38–2–2 39 (deletion of cumulative impact definition) CSR 38–2–3 22 e (approval of material damage to the hydrologic balance definition)

[FR Doc E8–30720 Filed 12–23–08 8 45 am]
BILLING CODE 4310–05–P

POSTAL SERVICE

39 CFR Parts 1–11

Bylaws of the Board of Governors

AGENCY: Postal Service

ACTION: Final rule

SUMMARY: The Board of Governors of the United States Postal Service has adopted a considerable number of amendments to its Bylaws set forth in subchapter A, parts 1 through 11, of title 39 of the Code of Federal Regulations These amendments implement changes in the authority, responsibilities and procedures of the Board made necessary by the Postal Accountability and Enhancement Act of 2006 (PAEA) Public Law 109–435 The Postal Service hereby publishes this final rule revising subchapter A to reflect the changes in the Board s Bylaws

DATES: *Effective Date* December 24 2008

FOR FURTHER INFORMATION CONTACT: Julie S Moore, Secretary of the Board, U S Postal Service, 475 L'Enfant Plaza SW Washington, DC 20260–1000, (202) 268–4800 or Christopher T Klepac (202) 268–3006

SUPPLEMENTARY INFORMATION: This document revises subchapter A incorporating parts 1 through 11 of 39 CFR, to reflect numerous changes to the Bylaws of the Postal Service s Board of Governors necessitated by the enactment of the Postal Accountability and Enhancement Act of 2006 (PAEA) Public Law 109–435 A large number of these changes are editorial or technical in nature, and do not alter the authority responsibilities, or procedures of the Board Others reflect substantive changes in these matters particularly with reference to the establishment of postal rates and fees under the new legislation For the convenience of the user subchapter A has been republished in its entirety as revised by the Board of Governors The following section-by-section analysis identifies the new or modified provisions of revised subchapter A

Section-by-Section Analysis

Part 1—Postal Policy (Article I)

The authority citation for part 1 has been updated to reflect changes under Public Law 109–435

Section 1 1 Establishment of the U S Postal Service

Language has been added to this section to reflect the enactment of

Tab 14

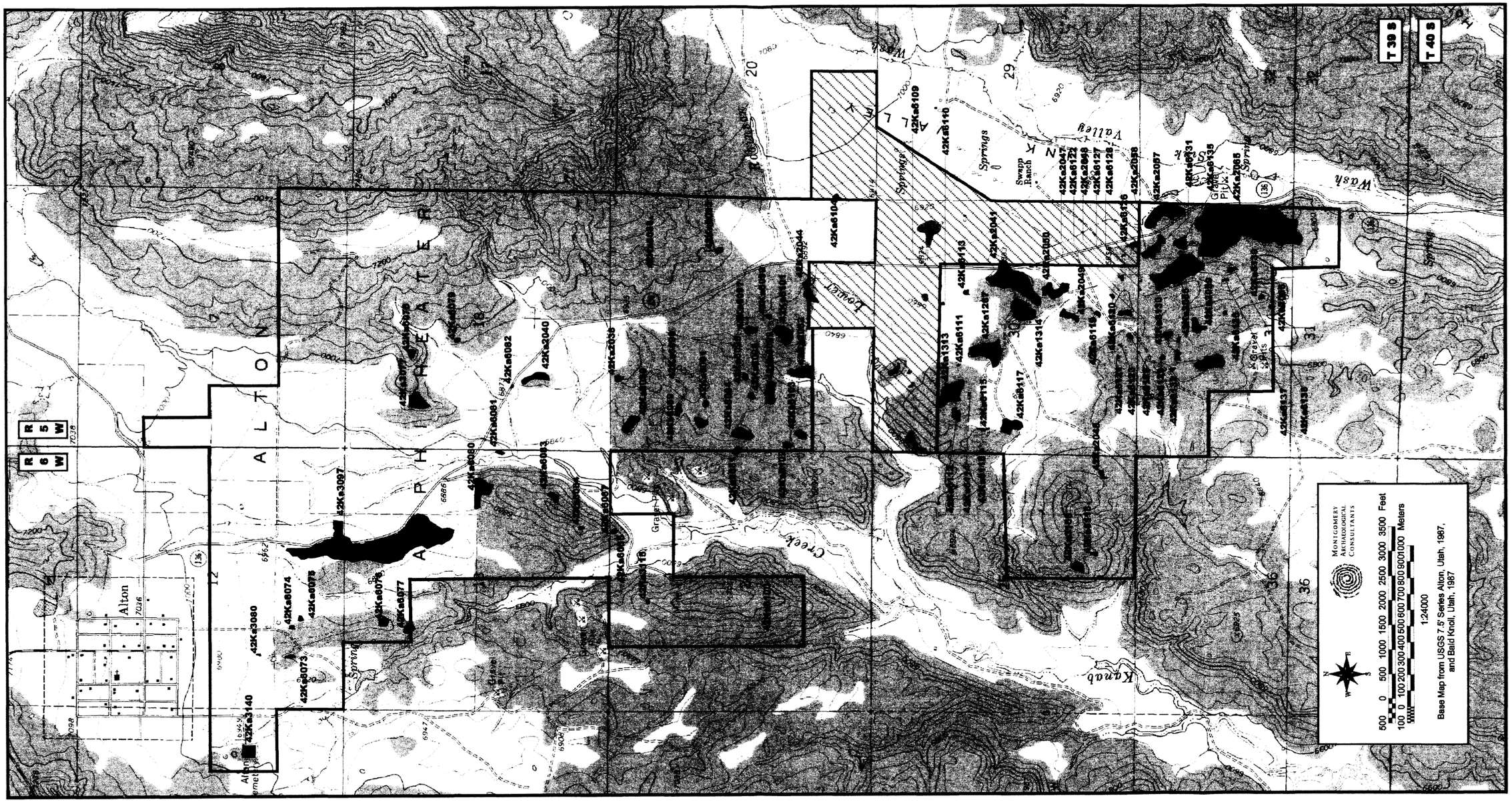

Figure 1. Cultural Resource Inventory of Alton Coal Development's Project Area, showing Archeological Sites.

Tab 15

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

July 10, 2008

Wilson Martin, State Historic Preservation Officer
Division of State History
300 South Rio Grande Street
Salt Lake City, UT 84101

Subject: Decision Memo Requesting State Historic Preservation Office (SHPO) Concurrence on CRMP and Data Recovery Plan Determination, Alton Coal Development Company, LLC, Coal Hollow Mine, C/025/0005, Task ID #2910, Outgoing File

Dear Mr. Martin:

On November 2, 2007 The Division of Oil, Gas, and Mining requested your concurrence on the eligibility and effect determination for the proposed Coal Hollow Mine. The project area was inventoried by Montgomery Archaeological Consultants in June of 2005. The report from this inventory, entitled "Cultural Resource Inventory of Alton Coal Development's Sink Valley – Alton Amphitheater Project Area, Kane County, Utah" was provided to your agency along with the IMACS forms for the fifteen sites (42KA1313, 2041 – 2044, 2068, 6104 – 6110, 6124, and 6126) located during this inventory. On November 26, 2007 the Division of Oil Gas and Mining received concurrence from your agency on the eligibility and effect determination for the proposed Coal Hollow Mine.

UDOGM determined that fourteen of the sites were historic properties (sites eligible for the National Register of Historic Places). Seven of these eligible, historic properties were to be affected by the proposed coal extraction activities. Please see the table below for specific determinations of eligibility and effect.

Table 1 – Determinations of Eligibility and Effect

Site Number	NRHP Determination	Effect Determination
42KA1313	Eligible	No Effect (will be avoided)
42KA2041	Eligible	No Effect (will be avoided)
42KA2042	Eligible	Adverse Effect
42KA2043	Eligible	No Effect (will be avoided)
42KA2044	Eligible	No Effect (will be avoided)
42KA2068	Eligible	Adverse Effect

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
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UTAH DNR OIL, GAS & MINING

42KA6104	Eligible	Adverse Effect
42KA6105	Eligible	Adverse Effect
42KA6106	Eligible	Adverse Effect
42KA6107	Eligible	Adverse Effect
42KA6108	Eligible	Adverse Effect
42KA6109	Eligible	No Effect (will be avoided)
42KA6110	Eligible	No Effect (will be avoided)
42KA6124	Not Eligible	
42KA6126	Eligible	No Effect (will be avoided)

On May 23, 2008 the Division received a revised CRPM and Data Recovery Plan form Montgomery Archaeological Consultants under the direction of Chris McCourt from Alton Coal Development LLC. for the mitigation of the seven sites that would be "effected" by the undertaking. A copy of the revised CRPM and Data Recovery Plan are included with this letter.

The Division in consultation with Lori Hunsaker and Dr. Matt Seddon has determined that the information in the revised CRPM and Data Recovery Plan adequately addresses the mitigation of the seven sites that would be "effected" by the undertaking and respectfully requests your concurrence with our determination.

If you have any questions or concerns please contact Joe Helfrich at (801) 538-5290 or Lori Hunsaker at (801) 537-9036 or me at (801) 538-5325.

Thank you.

Sincerely,

Daron R. Haddock
Permit Supervisor

an
Enclosure
O:\025005.COL\FINAL\WG2910\SHPO concurrence.doc

0135

OK Incoming C/025/005

From: Joe Helfrich
To: OGMCOAL
Date: 7/15/2008 8:21 AM
Subject: Fwd: Re: Alton Coal Hollow SHPO concurrence
Place: OGMCOAL
Attachments: SHPOltr.pdf; 0001.pdf

Please file in C/025/005 Coal Wollow task # 2910, incoming.....thanks, Joe

>>> Wilson Martin 7/14/2008 12:43 PM >>>
With assurances from PLPCO we concur.

Janice place in file.

Wilson G. Martin
Associate Director and SHPO
Division of State History
300 Rio Grande
Salt Lake City, Utah 84101-1182
Phone (801) 533-3552
Fax (801)533-3503
E-mail wmartin@utah.gov

>>> Joe Helfrich 7/10/2008 4:33 PM >>>
Hi Wilson;

Attached are the CRMP and Data Recovery Plan and the letter from DOGM requesting SHPO concurrence with their determination. Please call if you have any questions, Thanks, Joe 538-5290

ATTACHMENT PREVIOUSLY FILED IN "CONFIDENTIAL" date folder

05232008

Tab 16

ALTON/SINK VALLEY
CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT
(CHIA)

For

PROPOSED COAL HOLLOW MINE
C/25/0005

In

KANE COUNTY, UTAH

October 15, 2009

MATERIAL DAMAGE

Material damage to the hydrologic balance would possibly manifest itself as an economic loss to the current and potential water users, would result in quantifiable reduction of the capability of an area to support fish and wildlife communities, or would cause other quantifiable adverse change to the hydrologic balance outside the permit area. The basis for determining material damage may differ from site-to-site within the CIA according to specific site conditions. Surface-water and ground-water concerns have been identified for CHIA evaluation.

The direct effect of mining on the hydrology of the area is mainly focused on managing the limited amount of water that is available for present uses. This means that the quantity, quality and distribution of the water must be maintained at minimum present levels. The specific objectives of this CHIA used to evaluate material damage are:

1. Determine any changes in the quality of water that reaches the off-permit stream systems
2. Evaluate the sediment load to the stream system during and after mining and reclamation

Parameters for surface-water quantity and quality

The potential material-damage concerns this CHIA focuses on are changes of surface flow rates and chemical composition that would physically affect the off-permit stream channel systems as they presently function. Based on the data from the area, there is a minimal presence of aquatic habitat in this area. Wildlife habitat most likely to be affected by the proposed Coal Hollow Mine has been determined to be sage grouse. There is no farming in the CIA; however, there is livestock grazing and an AVF in Kanab Creek west of the permit area. In accordance with R645.302.323, *"the proposed operations would not materially damage the quantity and quality of water in surface and underground water systems that supply those alluvial valley floors or portions of alluvial valley floors which are outside the permit area of an existing or proposed coal mining and reclamation operation".*

Therefore, water-quality and quantity criteria are intended to identify changes in the present discharge regime that might be indicators of economic loss to the water users and grazing-right owners, of significant alteration to the channel size or gradient, or of loss of capacity to support existing fish and wildlife communities within the CIA. In order to assess the potential for material-damage to these elements of the hydrologic system, the following indicator parameters were selected for evaluation at each evaluation site: low-flow discharge rate and TDS.

Low-Flow Discharge Rate

In the Wasatch Plateau, Waddell and others (1981) found that correlating three years of

low-flow records (September) at stream sites against corresponding records from long-term monitoring sites would allow the development of a relationship that could be used to estimate future low-flow volumes at the stream sites within a standard deviation of approximately 20 %. Ten years of measurements reduced the standard deviation to 16 - 17 % and 15 years of data reduced it to about 15 %. This relationship indicates that a change in low-flow rates of less than 15 to 20 % probably would not be detectable. A 20 % decrease in the low-flow rate will provide a threshold indicator that decreased flows are persisting and that an evaluation for material damage is needed. However, because flow in many streams is intermittent, material damage due to loss of flow is very unlikely, and the intermittent nature of the flow will also make any such loss almost impossible to detect. Any such apparent change in discharge would need to be correlated against precipitation and a drought index such as the PHDI.

Aside from torrential precipitation events, currently Lower Robinson Creek sees minimal surface water flows in its stream channel. With the advent of surface mining, this area may see an increase in surface water via sheet flow along the surface as mining of the disturbed areas may produce some flows following a southwesterly gradient into Lower Robinson Creek. Monitoring of surface water flow levels at Lower Robinson Creek both at the mine site and downstream sample locations will provide a means to evaluate effects of the surface water flows resulting from disturbed areas on the receiving streams. Additionally, water from disturbed areas will be monitored at the discharge from the sedimentation ponds.

Total Dissolved Solids (TDS)

The concentration of dissolved solids is commonly used to indicate general water quality with respect to inorganic constituents. Wildlife and livestock use is the designated post-mining land use for the CIA, so established dissolved solids tolerance levels for wildlife and livestock have been adopted as the thresholds beyond which material damage may occur. The state standard for TDS for irrigation of crops and stockwatering (Class 4) is 1,200 mg/L. However, baseline conditions in the Coal Hollow permit and adjacent area have shown in both scientific literature from the USGS field investigations and in the baseline surface water data collected, that TDS concentrations can exceed levels over 3,000 mg/L in the stream channels - especially when surface water makes contact with silty, clayey or sandy sediments. As a result, material damage criteria for excessive TDS concentrations that persistently exceed 3,000 mg/L in springs, UPDES discharges, or receiving streams, it will be an indication that evaluation for potential material damage is needed.

Parameters for Ground Water Quantity and Quality

The potential material-damage concerns of this CHIA are intended to limit changes in the quantity and chemical composition of water from ground-water sources to magnitudes that:

- Will not cause economic loss to existing or potential agricultural and livestock

enterprises;

- Will not degrade domestic supplies;
- Would not cause structural damage to aquifers; and
- Will maintain adequate capacity for wildlife and the limited aquatic communities that exist in the area.

To assess the potential for material damage to these elements of the ground-water hydrologic system, the following indicator parameters were selected for evaluation: seasonal flow from springs and TDS concentration in spring and mine-discharge water.

Ground-water concerns will be monitored at numerous springs, wells, and UPDES discharge points. Locations are identified on Drawing 7-10 of the Coal Hollow Mine MRP. If inflow to a mine is significant or persistent, UDOGM can require monitoring of mine inflow.

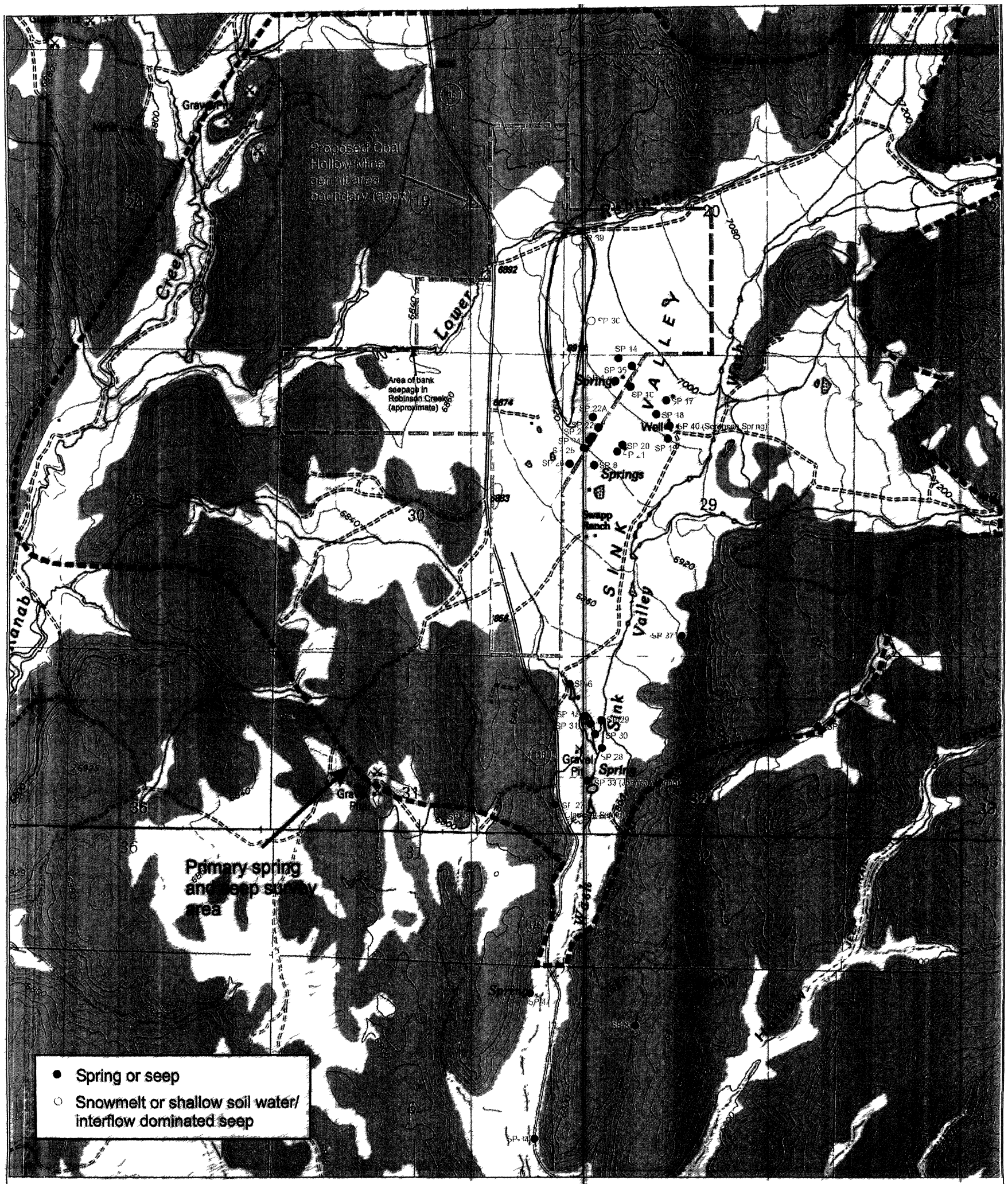
Seasonal flow from springs

Maintain potentiometric heads that sustain average spring discharge rates, on a seasonal basis, equal or greater than 80 % of the mean seasonal baseline discharge, or in other words baseline minus 20 % probable measurement error. The 20 % measurement error is based on analogy with the accuracy of measuring low-flow surface discharge rates. A 20 % decrease in flows, determined on a seasonal basis, will indicate that decreased flows are probably persisting and that an evaluation for material damage is needed.

TDS concentration

The concentration of total dissolved solids is commonly used to indicate general water quality with respect to inorganic constituents. The quality of water from underground sources reflects the chemical composition of the rocks the water passes through. Ground-water quality may be degraded by intrusion of poorer quality water from wells or mines, by leakage from adjoining formations, or by recharge through disturbed materials. Wildlife and livestock use ground water discharging from seeps and springs, and those are the designated postmining users most likely to be impacted. Baseline conditions in the Coal Hollow permit and adjacent area have shown in both scientific literature from USGS field investigations and in the baseline groundwater data collected that TDS concentrations from the upland areas range from 100-500 mg/L while baseline groundwater TDS concentrations in Sink Valley typically range from 500-3,000 mg/L. There are no state-established groundwater quality standards for TDS. If TDS concentrations persistently exceed 3,000 mg/L it will be an indication that evaluation for material damage is needed.

Tab 17



LEGEND	DRAWN BY	CHECKED BY
PERMIT BOUNDARY	N BUTKOVICH	CRM/APC
COAL LINE BOUNDARY	DRAWING: 7-1	DATE 6/6/06
		SCALE 1" = 800'
	JOB NUMBER: 1400	SHEET

REVISIONS	
DATE.	BY:
2/21/07	NLB
5/20/07	JAS
12/18/09	ECP

SPRING AND SEEP LOCATIONS

COAL HOLLOW PROJECT
ALTON, UTAH

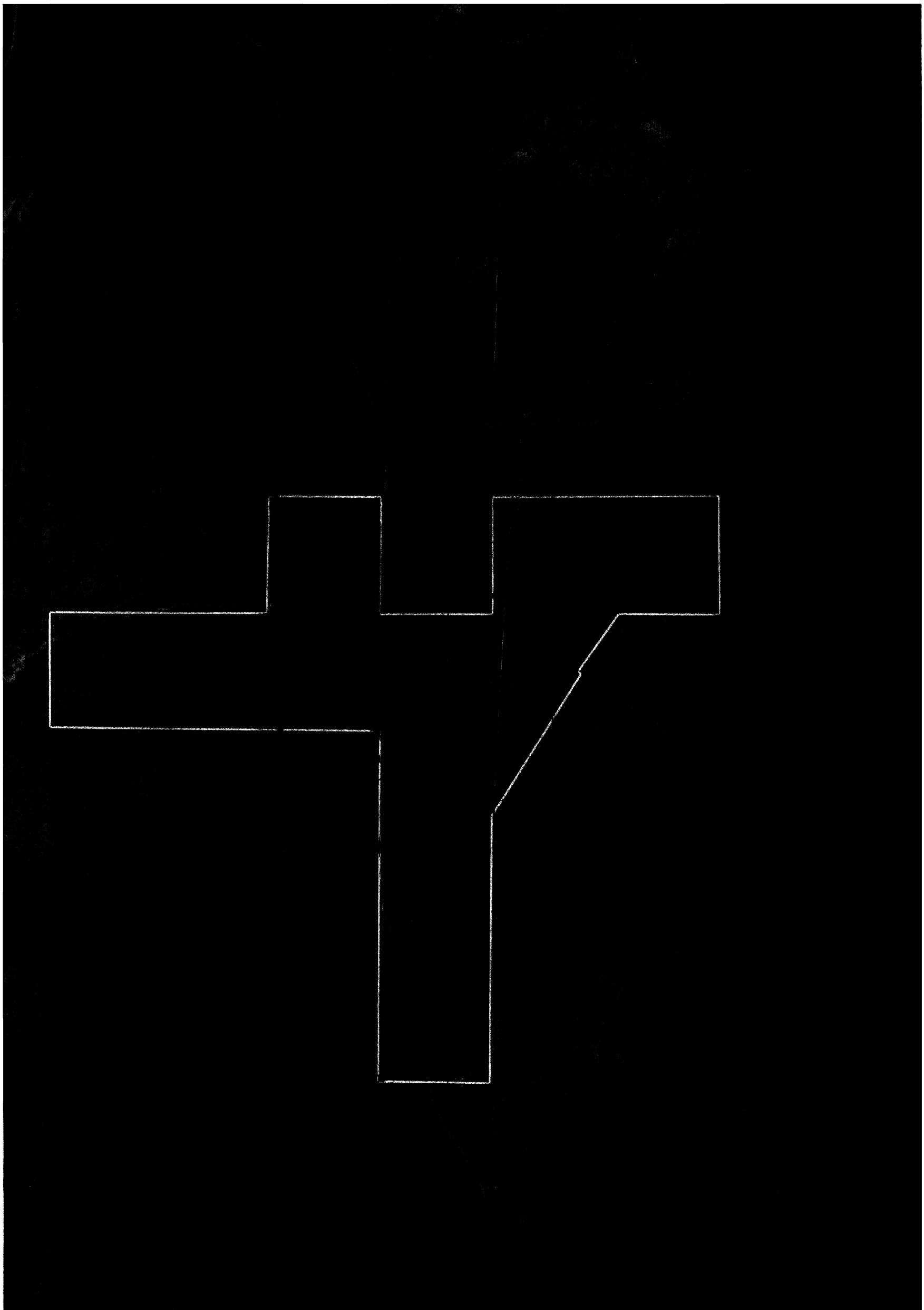
DRAWING: 7-1

ERIK CARL BATEMAN
5379616-2250
20 Dec. 06

Alton Coal Development
Coal Hollow PROJECT

463 North 100 West, Suite 1
Cedar City, Utah 84720
Phone (435)867-5331
Fax (435)867-1192

Tab 18



LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- COAL LINE BOUNDARY
- COAL PIT OUTLINES
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER

DRAWN BY:	CHECKED BY:
C. McCOURT	ECP
DRAWING: A7-10 Plate 1	DATE: 8/15/09
	SCALE: 1" = 500'
JOB NUMBER: 1400	SHEET

REVISIONS

DATE:	BY:

HYDROLOGY RESOURCE

CONTINGENCY PLAN VIEW

COAL HOLLOW PROJECT
ALTON, UTAH

A7-10 Plate 1

CRAIG R. McCOURT 8-17-09

RECEIVED
AUG 27 2009
DIV. OF OIL, GAS & MINING

Alton Coal Development
COAL HOLLOW PROJECT

463 North 100 West, Suite 1
Cedar City, Utah 84720
Phone (435)867-5331
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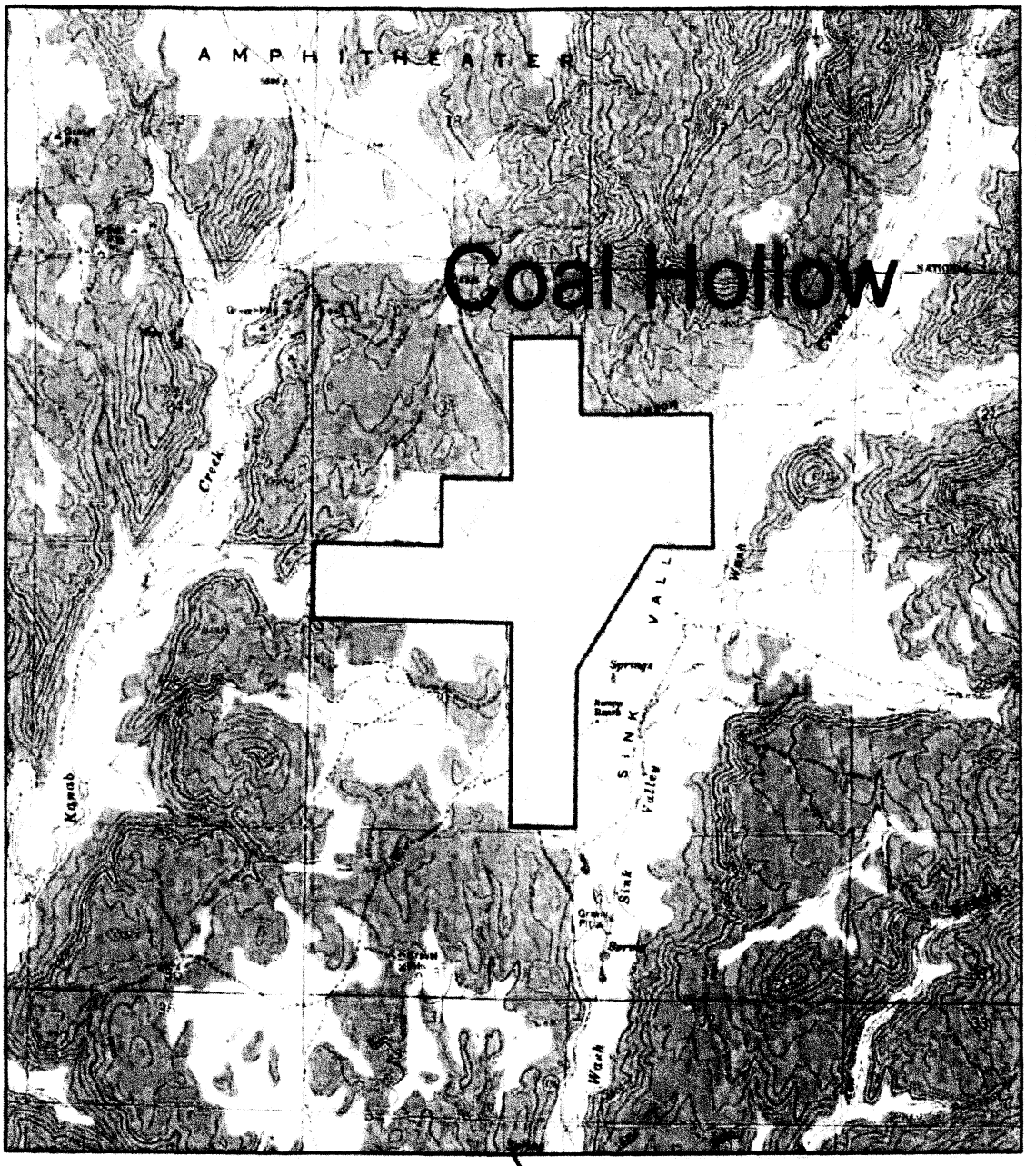
Tab 19



Coal Hollow Mine

C0250005
Kane County, Utah

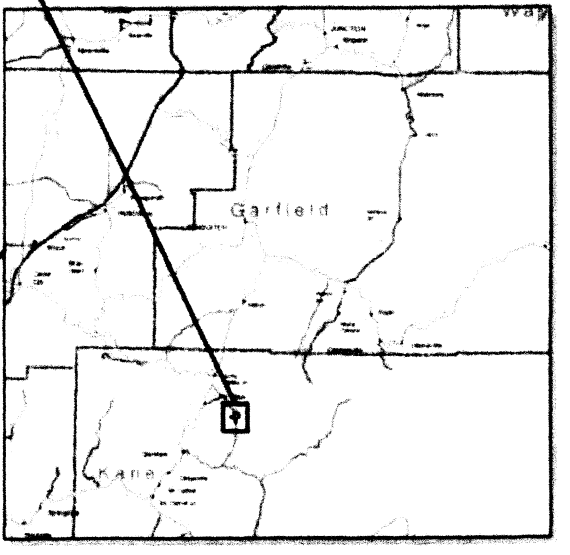
Township 39 South Range 5 West

- Permit Area
- Proposed Mine Plan Modification (If shown)
- Proposed State Permit Modification
- Active Permit
- In Reclamation
- Reclaimed-Final Bond Release

0 0.15 0.3 0.6 Miles

1:24,000

N:\GIS\coal\coalareamaps\C0250005.mxd
4/2/2008 @ 7:38:02 AM
NAD 1927 UTM Zone 12N



Locator Map